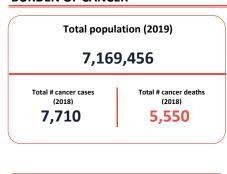
LAO PEOPLE'S DEMOCRATIC REPUBLIC

BURDEN OF CANCER

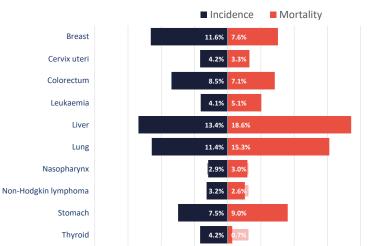


Premature deaths from NCDs (2016)
13,139

Cancer as % of NCD premature deaths (2016)

27.3%

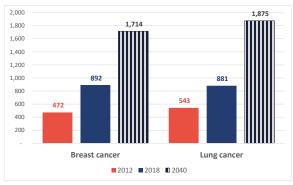




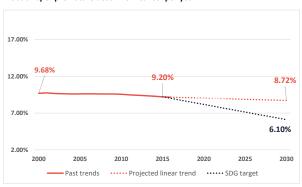


TRENDS

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

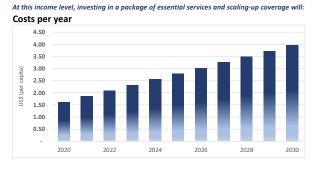


Probability of premature death from cancer per year

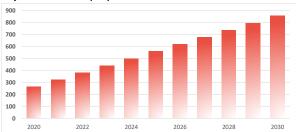


INVESTMENT CASE (2019)









LAO PEOPLE'S DEMOCRATIC REPUBLIC

wailability of population-based cancer	2010	Registration activity	WORKFORCE		
egistry (PBCR)**	2019	negistration activity	oper 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2019	1.3	# of radiation oncologist ^a	2019	n/a
photon, electron) a	2013		# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	3.9	# of surgeons ^a	2014	84.3
of CT scanners ^a	2020	6.5	# of radiologist ^a	2019	n/a
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	2014	824.9
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.3
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	2	Pathology services	2019	generally available
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't know
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	g
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	2019	35			
ge, target population					
ge, target population					
ge, target population			Global Initiative for Childhood Cancer		
	2018	n/a	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old)	2020	250
GLOBAL INITIATIVES	2018 2019	n/a yes		2020 2019	250 don't know
GLOBAL INITIATIVES Climination of Cervical Cancer IPV vaccination programme coverage			Annual cancer cases (0-14 years old)		don't know
GLOBAL INITIATIVES Climination of Cervical Cancer IPV vaccination programme coverage Servical cancer screening	2019	yes	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	
GLOBAL INITIATIVES Climination of Cervical Cancer IPV vaccination programme coverage Ervical cancer screening creening programme type	2019 2019	yes	Annual cancer cases (0-14 years old) Early detection programme/guidelines	2019	don't know
GLOBAL INITIATIVES Elimination of Cervical Cancer IPV vaccination programme coverage Elervical cancer screening creening programme type creening programme method	2019 2019 2019	yes opportunistic PAP smear	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019 2019	don't know
GLOBAL INITIATIVES Climination of Cervical Cancer IPV vaccination programme coverage tervical cancer screening creening programme type creening programme method creening participation rates	2019 2019 2019 2019	yes opportunistic PAP smear don't know	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019	don't know no
GLOBAL INITIATIVES Climination of Cervical Cancer IPV vaccination programme coverage Cervical cancer screening Creening programme type Creening programme method Creening participation rates Carly detection programme/guidelines	2019 2019 2019 2019 2019	yes opportunistic PAP smear don't know don't know	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019 2019 • Acute • Hodgk	don't know no Iymphoid leukaemia
GLOBAL INITIATIVES Climination of Cervical Cancer IPV vaccination programme coverage Cervical cancer screening Creening programme type Creening programme method Creening participation rates Carly detection programme/guidelines	2019 2019 2019 2019 2019	yes opportunistic PAP smear don't know don't know	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	don't know no lymphoid leukaemia iin 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

LEBANON

BURDEN OF CANCER

Total population (2019)

6,855,709

Total # cancer cases (2018) 17,294

Total # cancer deaths (2018) 8,976

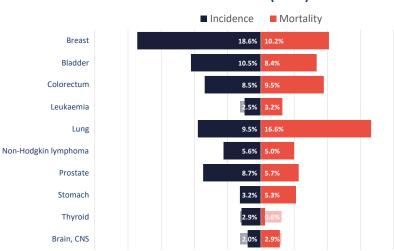
Premature deaths from NCDs (2016)

10,334

Cancer as % of NCD premature deaths (2016)

27.2%

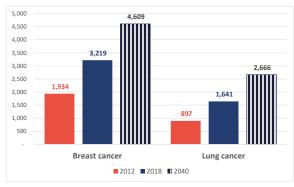
Most common cancer cases (2018)



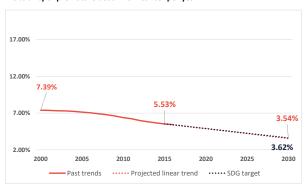
	24.0%	1.5%	7.3%	5.4%	19.4%	1.4%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012)°	Occupational risk (2017) ^a
mactions)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			,

TRENDS

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

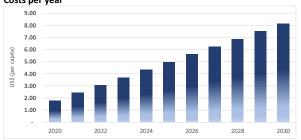


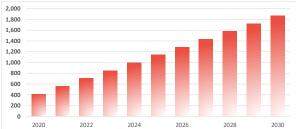
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







LEBANON

per 10,000 cancer patients Availability of population-based cancer	2019	PBCR	WORKFORCE		
egistry (PBCR)**	2019	PBCR	° 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	n/a
of external beam radiotherapy	2019	13.3	# of radiation oncologist ^a	2019	n/a
ohoton, electron) ^a	2013	13.3	# of medical physicist ^a	2019	11.6
of mammographs ^a	2020	185.6	# of surgeons ^a	2014	1472.8
of CT scanners ^a	2020	161.9	# of radiologist ^a	2019	231.3
of MRI scanners ^a	2020	63.6	# of nuclear medicine physician ^a	2019	8.7
of PET or PET/CT scanners ^a	2020	9.3	# of medical & pathology lab scientists ^a	2005	309.4
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.9
ICCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 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	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	2	Availability of opioids* for pain management	2015-2017	256
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	257
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
creening programme type	2019	opportunistic	Defined referral system	2019	no
creening programme method	2019	PAP smear	(0.44		
creening participation rates	2019	>50% and <70%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes		p A out	lumphoid lauliagests
Defined referral system	2019	yes	51		lymphoid leukaemia
					t lymphoma
			17		ow grade tumours
			143		oblastoma
			13		

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

LIBERIA

BURDEN OF CANCER



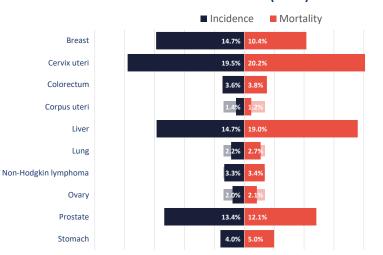
(2018) 2,808 2,223

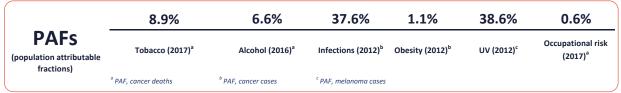
Premature deaths from NCDs (2016) 4,910

Cancer as % of NCD premature deaths (2016)

24.2%

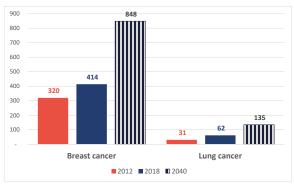
Most common cancer cases (2018)



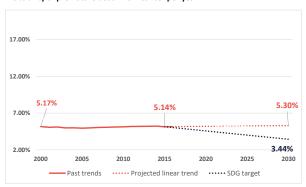


TRENDS

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

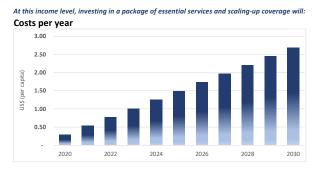


Probability of premature death from cancer per year

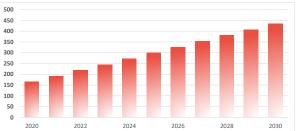


INVESTMENT CASE (2019)











^o per 10,000 cancer patients Availability of population-based cancer	2019	Registration activity	WORKFORCE		
egistry (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	ye
of external beam radiotherapy	2010	0.0	# of radiation oncologist ^a	2019	0.0
photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	0.0	# of surgeons ^a	2009	81.9
of CT scanners ^a	2020	3.6	# of radiologist ^a	2019	n/a
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	2010	n/a
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 no availabl
ancer management guidelines	2019	no	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 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 i	miliion inhabitants per	day
Breast cancer screening program: Starting age, 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	no
creening programme method	2019	n/a			
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
			30		nphoid leukaemia
Defined referral system	2019	no	14	■ Hodgkin	lymphoma
			19	■ Burkitt ly	rmphoma
			8	■ CNS, low	grade tumours
			163	■ Retinobla	astoma
			22	■ 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



BURDEN OF CANCER



6,777,453

Total # cancer cases (2018) **6,308**

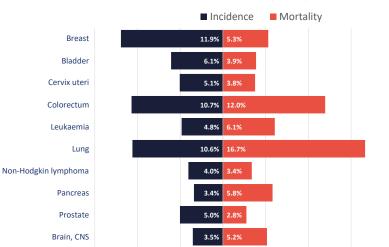
Total # cancer deaths (2018)
3,375

Premature deaths from NCDs (2016) 9,410

Cancer as % of NCD premature deaths (2016)

24.6%

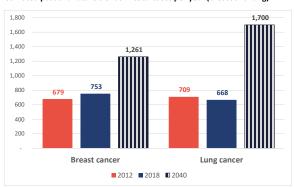
Most common cancer cases (2018)



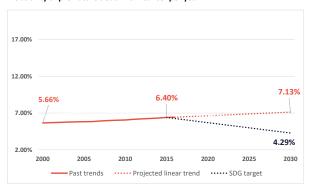
	16.2%	0.2%	13.7%	5.1%	13.2%	2.7%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
iractions	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

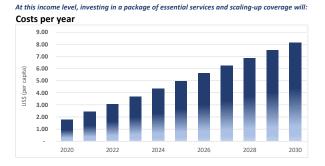


Probability of premature death from cancer per year

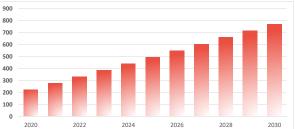


INVESTMENT CASE (2019)

*Upper middle income







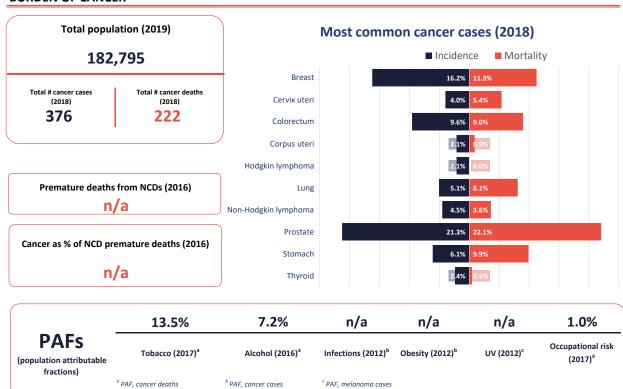


per 10,000 cancer patients vailability of population-based cancer			WORKFORCE		
egistry (PBCR)**	2019	Registration activity	^a per 10,000 cancer patients		
uality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ує
of external beam radiotherapy	2010	0.5	# of radiation oncologist ^a	2019	n/
photon,electron) ^a	2019	9.5	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	n/a	# of surgeons ^a	n/a	n/
of CT scanners ^a	2020	98.3	# of radiologist ^a	2019	95.
of MRI scanners ^a	2020	52.3	# of nuclear medicine physician ^a	2019	15.
of PET or PET/CT scanners ^a	2020	1.6	# of medical & pathology lab scientists ^a	n/a	n/
ORMULATING RESPONSE					
ntegrated NCD plan	2019	not in effect	# Public cancer centres per 10,000 cancer patients	2019	7.9
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	2	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	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	3
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	0	Annual cancer cases (0-14 years old)	2020	37
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 to	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	n/a no			
arry detection programme, guidennes	2013	110		■ Acute	lymphoid leukaemi
efined referral system	2019	no	54	■ Hodgk	in lymphoma
			6	■ Burkit	t lymphoma
			14	CNS I	ow grade tumours
				- 0143, 1	ow Brade tarriours
			248		oblastoma
				■ Retino	

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

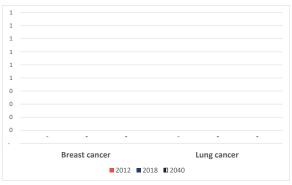
SAINT LUCIA

BURDEN OF CANCER

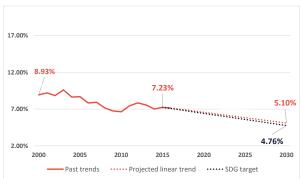


TRENDS

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

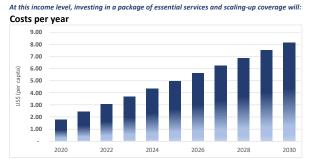


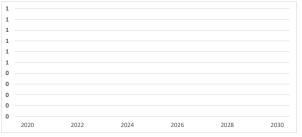
Probability of premature death from cancer per year $% \left(\mathbf{r}\right) =\left(\mathbf{r}\right)$



INVESTMENT CASE (2019)







SAINT LUCIA

	2010	Registration activity	WORKFORCE		
egistry (PBCR)**	2019	negistration activity	^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	0.0	# of radiation oncologist ^a	2019	0.0
photon,electron) ^a			# of medical physicist ^a	2019	0.0
of mammographs ^a	2020	53.2	# of surgeons ^a	2014	531.9
of CT scanners ^a	2020	53.2	# of radiologist ^a	2019	106.4
of MRI scanners ^a	2020	26.6	# of nuclear medicine physician ^a	2019	0.0
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	n/a	n/a
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	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	2	Availability of opioids* for pain management	2015-2017	
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					
			Global Initiative for Childhood Cancer		
limination of Cervical Cancer			Giobai illitiative foi Cilliullood Calicel		
ilimination of Cervical Cancer	2018	n/a	Annual cancer cases (0-14 years old)	2020	
	2018 2019	n/a no		2020 2019	
IPV vaccination programme coverage			Annual cancer cases (0-14 years old)		n
IPV vaccination programme coverage Servical cancer screening	2019	no	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	n
IPV vaccination programme coverage tervical cancer screening creening programme type	2019	no n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines	2019	n
IPV vaccination programme coverage fervical cancer screening creening programme type creening programme method	2019 2019 2019	no n/a n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019 2019	n
IPV vaccination programme coverage fervical cancer screening creening programme type creening programme method creening participation rates	2019 2019 2019 2019	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
IPV vaccination programme coverage fervical cancer screening creening programme type creening programme method creening participation rates farly detection programme/guidelines	2019 2019 2019 2019 2019	no n/a n/a n/a no	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019 2019 • Acute I	ni nymphoid leukaemia in lymphoma
IPV vaccination programme coverage fervical cancer screening creening programme type creening programme method creening participation rates farly detection programme/guidelines	2019 2019 2019 2019 2019	no n/a n/a n/a 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 l Hodgki	n n Iymphoid leukaemia in lymphoma
IPV vaccination programme coverage fervical cancer screening creening programme type creening programme method creening participation rates farly detection programme/guidelines	2019 2019 2019 2019 2019	no n/a n/a n/a 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 I Hodgki Burkitt CNS, lo	n n Iymphoid leukaemia in lymphoma Iymphoma

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

SRI LANKA

BURDEN OF CANCER



21,323,734

Total # cancer cases (2018)
23,530

Total # cancer deaths (2018)

14,013

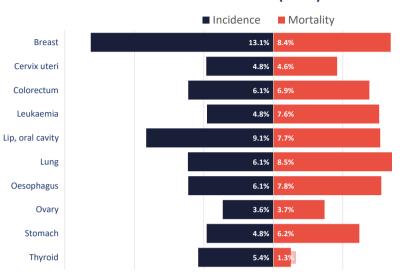
Premature deaths from NCDs (2016)

49,625

Cancer as % of NCD premature deaths (2016)

23.4%

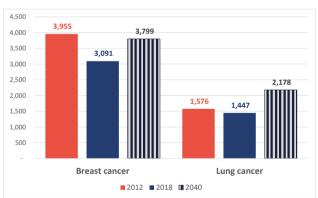
Most common cancer cases (2018)



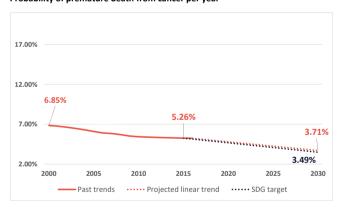


TRENDS

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



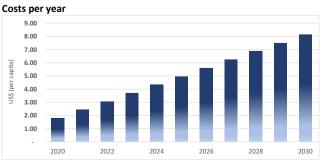
Probability of premature death from cancer per year

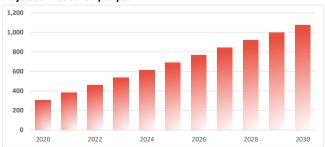


INVESTMENT CASE (2019)

*Unner middle income

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





■ CNS, low grade tumours

Other childhood cancer

RetinoblastomaWilms tumour

SRI LANKA

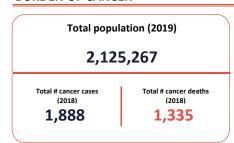
HEALTH SYSTEM CAPACITY

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	PBCR	WORKFORCE * 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	2019	yes
# of external beam radiotherapy			time to cancer # of radiation oncologist ^a	2019	19.1
(photon,electron) ^a	2019	6.8	# of medical physicist ^a	2019	11.0
# of mammographs ^a	2020	11.0	# of surgeons ^a	2013	50.1
# of CT scanners ^a	2020	20.4	# of radiologist ^a	2019	80.7
# of MRI scanners ^a	2020	8.9	# of nuclear medicine physician ^a	2019	1.3
# of PET or PET/CT scanners ^a	2020	1.3	# of medical & pathology lab scientists ^a	2015	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	3.8
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 not available
# of treatment services (surgery, radiotherapy, 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 i	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	66.9	Annual cancer cases (0-14 years old)	2020	540
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	organised	Defined referral system	2019	no
Screening programme method	2019	PAP smear	4		
Screening participation rates	2019	>50% and <70%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
Defined referral system	2019	yes		■ Acute	lymphoid leukaemia
•		•	161	■ Hodgl	kin lymphoma
				■ Burkit	t lymphoma
			297	- 6016 1	

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

LESOTHO

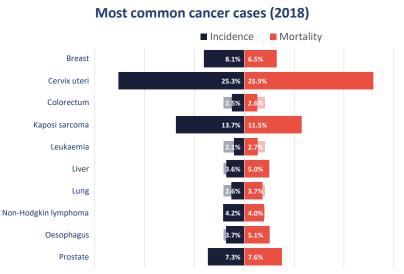
BURDEN OF CANCER

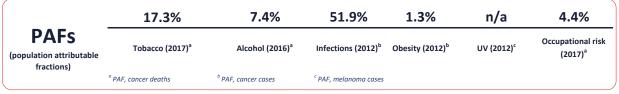




Cancer as % of NCD premature deaths (2016)

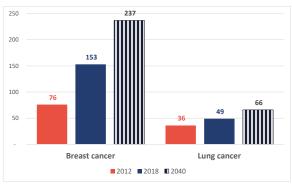
18.3%



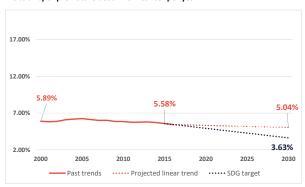


TRENDS

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

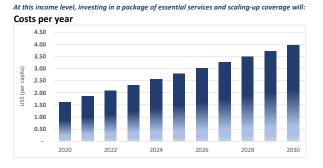


Probability of premature death from cancer per year

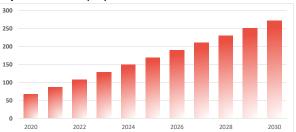


INVESTMENT CASE (2019)

*Lower middle income







LESOTHO

ortients f in Ministry of Health who ificant proportion of their oncologist ^a hysicist ^a t ^a tedicine physician ^a	2019 2019 2019	yes
ificant proportion of their oncologist ^a hysicist ^a	2019	
hysicist ^a t ^a		
it ^a	2019	n/a
t ^a		n/a
	2014	21.3
edicine physician ^a	2019	n/a
• •	2019	0.0
a pathology lab scientists ^a	2003	n/a
r centres per 10,000 cancer	2019	-
n programme/ guidelines for ast, cervix, colon, childhood)	2019	1 cancer(s
vices	2019	generally available
transplantation capacity	2019	generally no availabl
availability: ome-based care	2019	generally no available
opioids* for pain	015-2017	
es for statistical purposes (S-DDD) per miliio	on inhabitants (per day
tive for Childhood Cancer		
cases (0-14 years old)	2020	68
n programme/guidelines	2019	ne
ral system	2019	ne
cases (0-14 years old)		
	■ Acuto	lymphoid leukaemia
11		
		in lymphoma
3		ow grade tumours
3		blastoma
3 4 3	Retino	
	3	3 ■ Burkitt

^{**}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



BURDEN OF CANCER

Total population (2019)

2,759,631

Total # cancer cases (2018) **16,351**

Total # cancer deaths (2018)
8,583

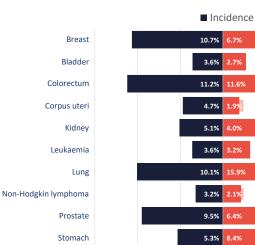
Premature deaths from NCDs (2016)

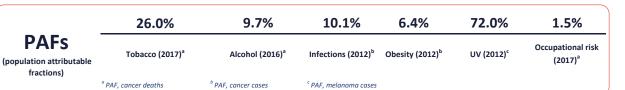
10,260

Cancer as % of NCD premature deaths (2016)

34.8%

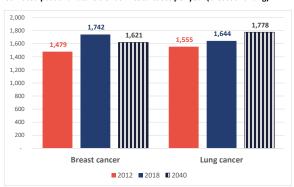
Most common cancer cases (2018)



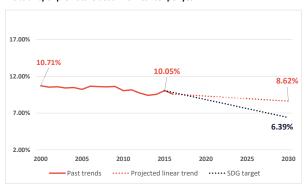


TRENDS

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



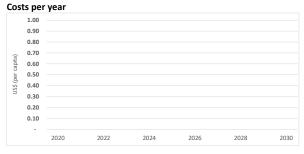
Probability of premature death from cancer per year

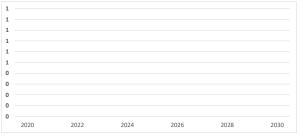


INVESTMENT CASE (2019)

*High income

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





3.7

1001

4 cancer(s)

generally available

generally available

generally available

LITHUANIA

HEALTH SYSTEM CAPACITY

^a per 10,000 cancer patients					
Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**			^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	yes
of external beam radiotherapy	2010		# of radiation oncologist ^a	2019	20.8
(photon,electron) ^a	2019	7.3	# of medical physicist ^a	2019	28.1
# of mammographs ^a	2020	27.5	# of surgeons ^a	2013	1485.5
# of CT scanners ^a	2020	40.4	# of radiologist ^a	2019	218.9
of MRI scanners ^a	2020	21.4	# of nuclear medicine physician ^a	2019	11.0
# 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
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	1	Pathology services	2019
Cancer management guidelines	2019	yes	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	2015-2017
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per m	iliion inhabitants
Breast cancer screening program: Starting age, target population	2019	50		

ion inhabitants per day

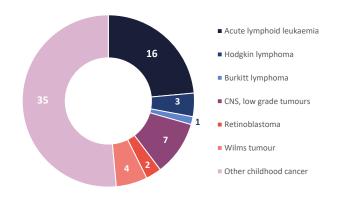
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	45.9
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	68
Early detection programme/guidelines	2019	yes
Defined referral system	2019	ves

Annual cancer cases (0-14 years old)



LUXEMBOURG

BURDEN OF CANCER

Total population (2019)
615,730

Total # cancer cases (2018)
3,271

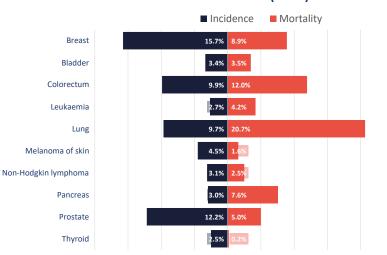
Total # cancer deaths (2018)
1,121

Premature deaths from NCDs (2016)

Cancer as % of NCD premature deaths (2016)

51.5%

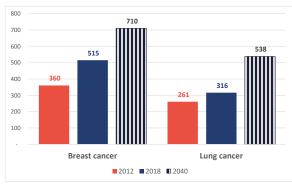
Most common cancer cases (2018)



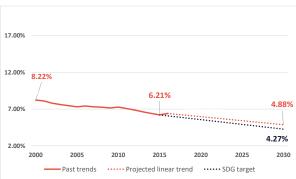


TRENDS

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



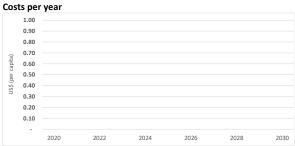
Probability of premature death from cancer per year

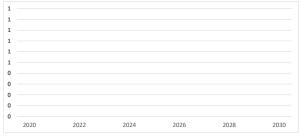


INVESTMENT CASE (2019)

*High income

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





LUXEMBOURG

HEALTH SYSTEM CAPACIT	TΥ	CI.	Α	P	Α	C	M	ΓΕ	S.	I S	ГΗ	Ľ	EΑ	Н	
-----------------------	----	-----	---	---	---	---	---	----	----	-----	----	---	----	---	--

er 10,000 cancer patients					
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	High	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2040	42.2	# of radiation oncologist ^a	2019	18.3
photon,electron) ^a	2019	12.2	# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	21.4	# of surgeons ^a	2014	889.6
of CT scanners ^a	2020	36.7	# of radiologist ^a	2019	260.:
of MRI scanners ^a	2020	21.4	# of nuclear medicine physician ^a	2019	42.8
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	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)		0 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	8205
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			

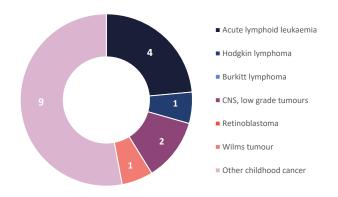
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	14.1
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	17
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)





BURDEN OF CANCER



1,906,740

Total # cancer cases (2018)
12,171

Total # cancer deaths (2018)
6,087

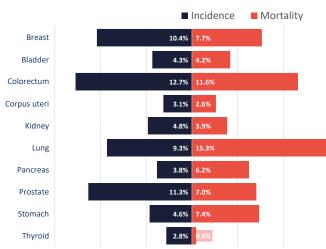
Premature deaths from NCDs (2016)

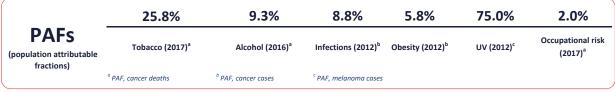
7,213

Cancer as % of NCD premature deaths (2016)

33.9%

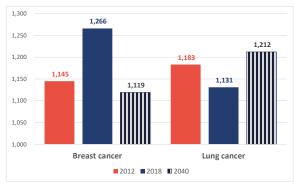
Most common cancer cases (2018)



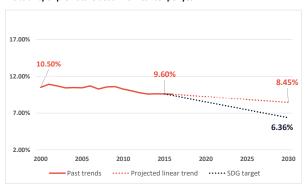


TRENDS

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



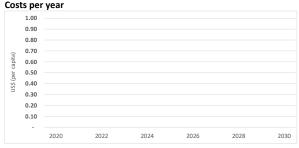
Probability of premature death from cancer per year

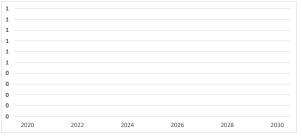


INVESTMENT CASE (2019)

*High income

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







HEALTH SYSTEM CAPACITY

° per 10,000 cancer patients			
Availability of population-based cancer	2019	High quality PBCR	WORK
registry (PBCR)**			° per 10,000 Available
Quality of mortality registration***	2007-2016	High	dedicate
			time to c
# of external beam radiotherapy	2019	7.4	# of radi
(photon,electron) ^a	2019	7.4	# of med
# of mammographs ^a	2020	40.3	# of surg
# of CT scanners ^a	2020	59.2	# of radi
# of MRI scanners ^a	2020	22.2	# of nucl
# of PET or PET/CT scanners ^a	2020	0.0	# of med

WORKFORCE		
° per 10,000 cancer patients Available staff in Ministry of Health who		
dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist ^a	2019	n/a
# of medical physicist ^a	2019	37.0
# of surgeons ^a	2014	866.8
# of radiologist ^a	2019	246.5
# of nuclear medicine physician ^a	2019	n/a
# of medical & nathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	2
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	50

# Public cancer centres per 10,000 cancer patients	2019	4.1
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	1883

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

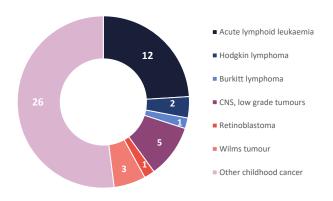
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	53.1
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	50
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



MOROCCO

BURDEN OF CANCER



36,471,766

Total # cancer cases (2018) **52,783**

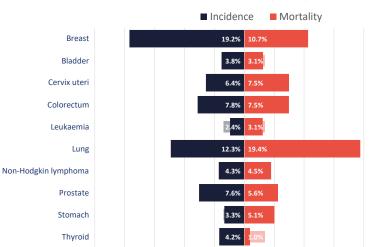
Total # cancer deaths (2018) 32,962

Premature deaths from NCDs (2016) 39,524

Cancer as % of NCD premature deaths (2016)

41.1%

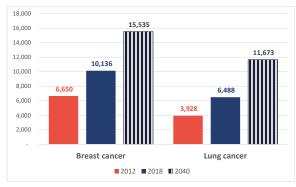
Most common cancer cases (2018)



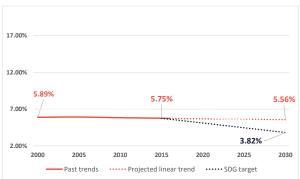
	17.9%	1.1%	14.3%	3.2%	14.0%	2.3%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk
Hactions	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

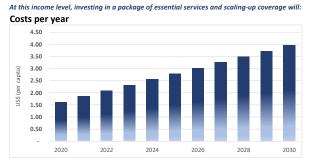


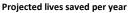
Probability of premature death from cancer per year

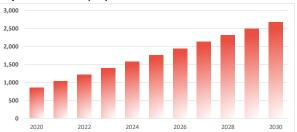


INVESTMENT CASE (2019)

*Lower middle income







CNS, low grade tumoursRetinoblastomaWilms tumour

Other childhood cancer

MOROCCO

per 10,000 cancer patients Availability of population-based cancer	2019	PBCR	WORKFORCE		
registry (PBCR)**	2019	FBCR	^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	yes
f of external beam radiotherapy	2019	8.0	# of radiation oncologist ^a	2019	n/a
photon, electron) a	2015	0.0	# of medical physicist ^a	2019	9.5
f of mammographs ^a	2020	43.6	# of surgeons ^a	2011	480.1
of CT scanners ^a	2020	53.0	# of radiologist ^a	2019	135.5
of MRI scanners ^a	2020	22.7	# of nuclear medicine physician ^a	2019	12.3
t of PET or PET/CT scanners ^a	2020	2.3	# of medical & pathology lab scientists ^a	2017	112.7
FORMULATING RESPONSE					
ntegrated 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	2 cancer(s)
MPOWER measures fully implemented and ochieved	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, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not
f of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	42
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	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	1939
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	organised	Defined referral system	2019	no
Screening programme method	2019	visual inspection	Amount		
Screening participation rates	2019	<10%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	279		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

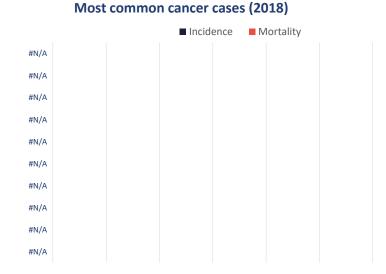
MONACO

BURDEN OF CANCER





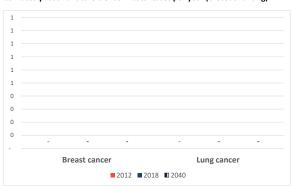




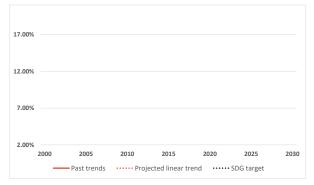


TRENDS

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



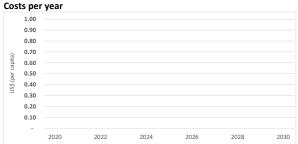
Probability of premature death from cancer per year

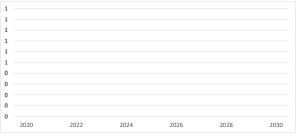


INVESTMENT CASE (2019)

*High income

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





MONACO

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	Low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ує
of external beam radiotherapy	2019	n/a	# of radiation oncologist ^a	2019	n/
photon,electron) ^a	2013	1,70	# 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(
1POWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally availab
ancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally availab
alliative care included in their operational, ntegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally availab
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	n/
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	50			
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	n/
ervical 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	- la	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	n/a no			
, accessor programme/ galacimes	2013	110	0	■ Acute	lymphoid leukaemia
efined referral system	2019	no	ū	■ Hodgk	kin lymphoma
				■ Burkit	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
***The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

MOLDOVA, REPUBLIC OF

BURDEN OF CANCER



Total # cancer cases (2018)
15,284

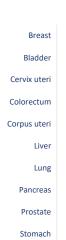
Total # cancer deaths (2018)
8,508

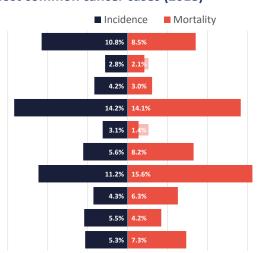
Premature deaths from NCDs (2016) 16,550

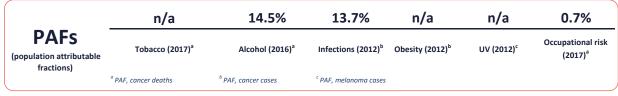
Cancer as % of NCD premature deaths (2016)

27.5%

Most common cancer cases (2018)

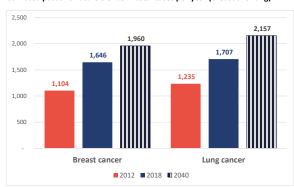




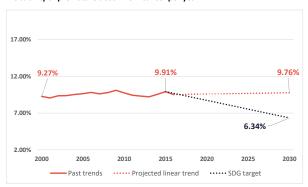


TRENDS

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

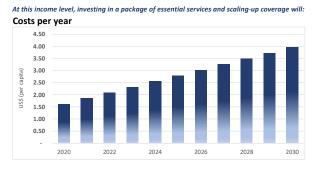


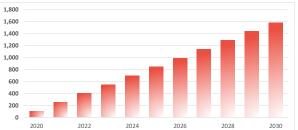
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







MOLDOVA, REPUBLIC OF

L	JE	ΛІ	TU	ľ	VCT	LEV	Л	CA	DΛ	CI	TV	,
г	7 E	AL	ΙП		13	IEI	ν.	LA	РΑ	u		

per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	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 time to cancer	2019	yes
of external beam radiotherapy	otherapy 2019	2.0	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a			# of medical physicist ^a	2019	9.8
of mammographs ^a	2020	12.4	# of surgeons ^a	2013	368.4
of CT scanners ^a	2020	15.7	# of radiologist ^a	2019	196.
of MRI scanners ^a	2020	7.2	# of nuclear medicine physician ^a	2019	2.0
of PET or PET/CT scanners ^a	2020	2.0	# of medical & pathology lab scientists ^a	2015	n/a

FORMULATING RESPONSE

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

# Public cancer centres per 10,000 cancer patients	2019	0.7
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	292

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

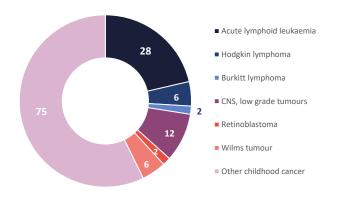
GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	131
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



MADAGASCAR

BURDEN OF CANCER

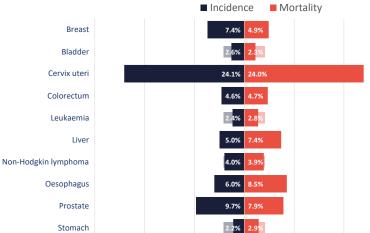


Premature deaths from NCDs (2016) 31,852

Cancer as % of NCD premature deaths (2016)

29.9%

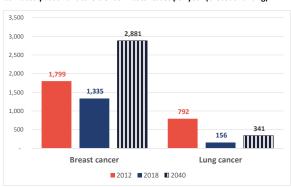




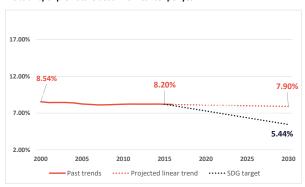


TRENDS

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

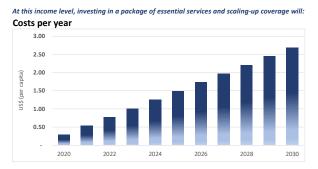


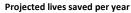
Probability of premature death from cancer per year

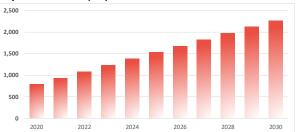


INVESTMENT CASE (2019)









MADAGASCAR

Availability of population-based cancer	2019	No information	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	1.1	# of radiation oncologist ^a # of medical physicist ^a	2019 2019	n/a 1.1
of mammographs ^a	2020	3.3	# of surgeons ^a	2013	49.8
of CT scanners ^a	2020	5.5	# of radiologist ^a	2019	n/a
f of MRI scanners ^a	2020	0.0	# of nuclear medicine physician ^a	2019	0.6
f 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	2.2
ICCP (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 no available
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	1	Availability of opioids* for pain management	2015-2017	2
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per n	niliion 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		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	1494
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
creening programme type	2019	opportunistic	Defined referral system	2019	no
creening programme method	2019	visual inspection	(0.44		
creening participation rates	2019	<10%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes		- A custo lum	منسم مرارما امرام
ofined referral system	2019	WOS	189		nphoid leukaemia
Defined referral system	2019	yes	63	■ Hodgkin	
				■ Burkitt ly	
			57		grade tumours
			954	■ 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

MALDIVES

BURDEN OF CANCER

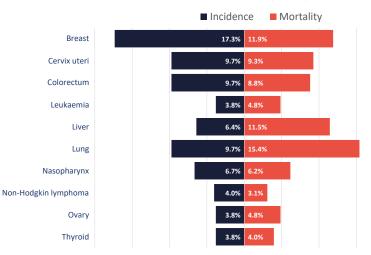


Premature deaths from NCDs (2016) 309

Cancer as % of NCD premature deaths (2016)

40.0%

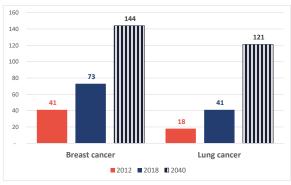
Most common cancer cases (2018)



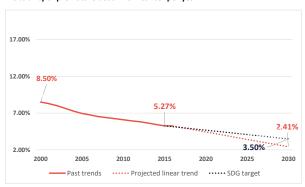


TRENDS

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

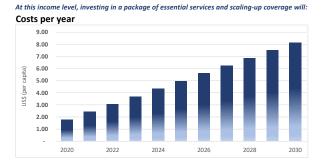


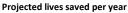
Probability of premature death from cancer per year

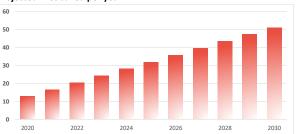


INVESTMENT CASE (2019)

*Upper middle income







MALDIVES

per 10,000 cancer patients Availability of population-based cancer	2019	No information	WORKFORCE		
registry (PBCR)**	2019	No information	^a 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	2013	5.5	# of medical physicist ^a	2019	n/s
of mammographs ^a	2020	23.8	# of surgeons ^a	2014	142.
of CT scanners ^a	2020	71.3	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	23.8	# of nuclear medicine physician ^a	2019	n/
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2016	237.
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	47.5
ICCP (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 availabl
Cancer 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 availabl
f of treatment services (surgery, adiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	3
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per n	miliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	15			
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	ye
Screening programme type	2019	organised	Defined referral system	2019	ye
creening programme method	2019	PAP smear			
Screening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	10%-50% yes			
, and the proposition of paracetrics	2013	yes.		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes		■ Hodgk	kin lymphoma
			3	■ Burkit	t lymphoma
			5	CNS, I	ow grade tumours
				■ Retino	oblastoma
				■ 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)

127,575,529

Total # cancer cases (2018)
190,667

Total # cancer deaths (2018) 83,476

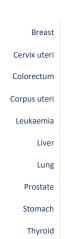
Premature deaths from NCDs (2016)

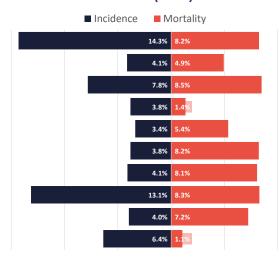
213,140

Cancer as % of NCD premature deaths (2016)

19.5%

Most common cancer cases (2018)

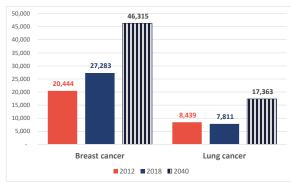




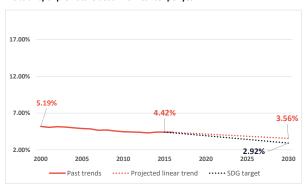


TRENDS

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



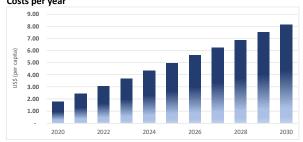
Probability of premature death from cancer per year

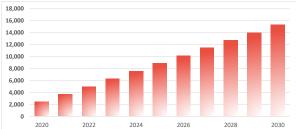


INVESTMENT CASE (2019)

*Upper middle income







MEXICO

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	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	no
			time to cancer	2019	- I
of external beam radiotherapy	2019	8.1	# of radiation oncologist ^a	2019	n/a
photon, electron) ^a	2023		# of medical physicist ^a	2019	7.
of mammographs ^a	2020	64.4	# of surgeons ^a	2012	1358.
of CT scanners ^a	2020	41.4	# of radiologist ^a	2019	203.
of MRI scanners ^a	2020	17.6	# of nuclear medicine physician ^a	2019	12.
of PET or PET/CT scanners ^a	2020	2.7	# of medical & pathology lab scientists ^a	2010	n/

FORMULATING RESPONSE

Integrated NCD plan	2019	not in effect	# Public cancer centres per 1 patients
NCCP (including cancer types)	2019	operational	Early detection programme/ 4 cancers (breast, cervix, colo
MPOWER measures fully implemented and achieved	2018	2	Pathology services
Cancer management guidelines	2019	yes	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	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	n/a
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	don't know
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	109

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

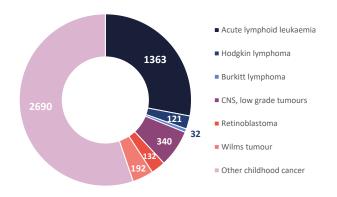
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	98.6
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	don't know
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

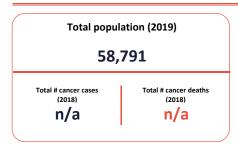
Annual cancer cases (0-14 years old)	2020	4870
Early detection programme/guidelines	2019	yes
Defined referral system	2019	ves

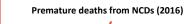
Annual cancer cases (0-14 years old)



MARSHALL ISLANDS

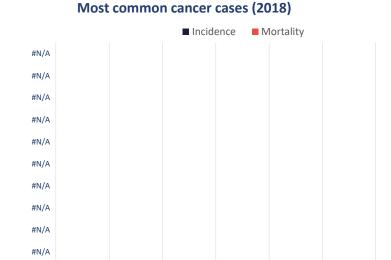
BURDEN OF CANCER





Cancer as % of NCD premature deaths (2016)

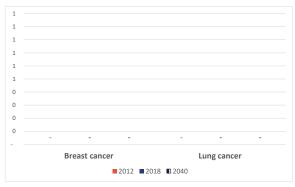
n/a



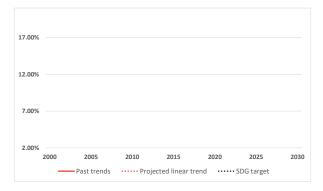
	15.9%	n/a	n/a	n/a	n/a	2.6%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012)°	Occupational risk (2017) ^a
,	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			,

TRENDS

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

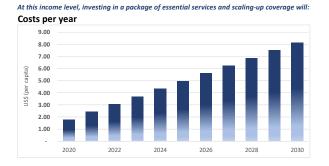


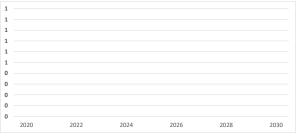
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*Upper middle income





MARSHALL ISLANDS

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

per 10,000 cancer patients Availability of population-based cancer	2040	nn en	WORKFORCE		
egistry (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	ye
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	2011	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	2012	n/
ORMULATING 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	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, itegrated 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	
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	20			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	28.1	Annual cancer cases (0-14 years old)	2020	n/
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	don't kno
creening programme type	2019	opportunistic	Defined referral system	2019	don't kno
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			
, , , , , , , , , , , , , , , , , , , ,		, , ,		■ Acute lyr	nphoid leukaemi
efined referral system	2019	yes		■ 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

NORTH MACEDONIA

BURDEN OF CANCER

Total population (2019)

2,083,458

Total # cancer cases (2018)

7,807

Total # cancer deaths (2018)

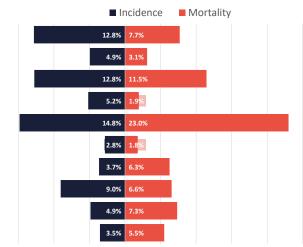
4,116

Premature deaths from NCDs (2016) 5.907

Cancer as % of NCD premature deaths (2016)

37.6%

Most common cancer cases (2018)





Breast

Bladder

Colorectum

Corpus uteri

Melanoma of skin

Lung

Pancreas

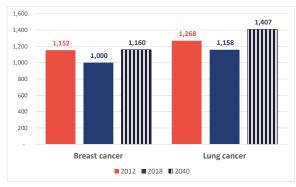
Prostate

Stomach

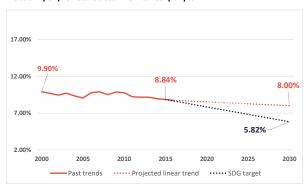
Brain, CNS

TRENDS

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

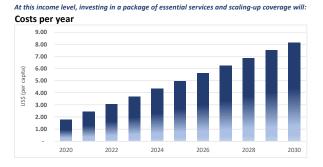


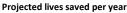
Probability of premature death from cancer per year

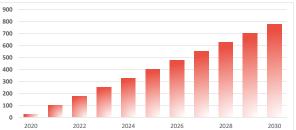


INVESTMENT CASE (2019)

*Upper Middle Income







NORTH MACEDONIA

HEALTH SYSTEM CAPACITY

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	High	dedicates significant proportion of their time to cancer	2019	don't know		
# of external beam radiotherapy	2010		# of radiation oncologist ^a	2019	n/a		
(photon,electron) ^a	2019	5.1	# of medical physicist ^a	2019	23.1		
# of mammographs ^a	2020	38.4	# of surgeons ^a	2011	977.3		
# of CT scanners ^a	2020	35.9	# of radiologist ^a	2019	294.6		
# of MRI scanners ^a	2020	12.8	# of nuclear medicine physician ^a	2019	21.8		
# of PET or PET/CT scanners ^a	2020	3.8	# of medical & pathology lab scientists ^a	n/a	n/a		

FORMULATING RESPONSE

2019	under development	# Public cancer centres per 10,000 cancer patients	20
2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	20
2018	2	Pathology services	20
2019	yes	Bone marrow transplantation capacity	20
2019	no	Palliative care availability: community/home-based care	20
2019	3	Availability of opioids* for pain 2015-	-20
2019	yes	*Defined daily doses for statistical purposes (S-DDD) per miliion in	hab
2019	50		
	2019 2018 2019 2019 2019 2019	2019 operational 2018 2 2019 yes 2019 no 2019 3 2019 yes	patients Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood) 2018 2 Pathology services 2019 yes Bone marrow transplantation capacity 2019 no Palliative care availability: community/home-based care 2019 3 Availability of opioids* for pain management 2019 yes *Defined daily doses for statistical purposes (S-DDD) per million initial

2019 2019 3 cancer(s) 2019 generally available generally available generally available 2019 2017

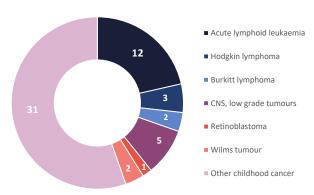
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	40
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	56
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)

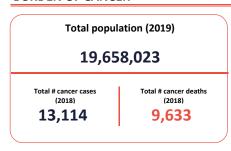


^{**}The incidence estimates for this country have a high degree of uncertainty because they are not based on population based cancer registry

abitants per day



BURDEN OF CANCER

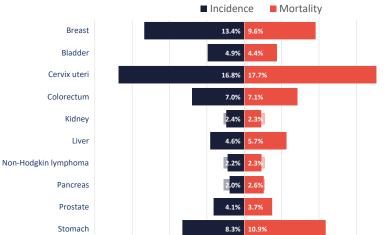


Premature deaths from NCDs (2016) 22,979

Cancer as % of NCD premature deaths (2016)

23.3%

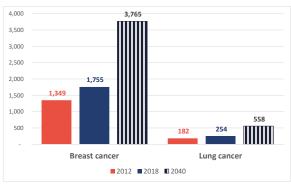
Most common cancer cases (2018)



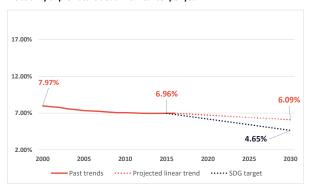


TRENDS

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

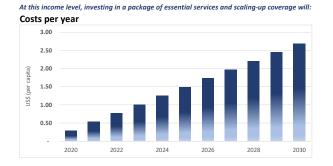


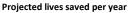
Probability of premature death from cancer per year

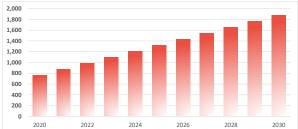


INVESTMENT CASE (2019)

*Low income









per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	PBCR	WORKFORCE		
egistry (PDCR)			"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		
of external beam radiotherapy	2019	0.8	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2013	0.0	# of medical physicist ^a	2019	0.8
of mammographs ^a	2020	18.3	# of surgeons ^a	2014	115.1
of CT scanners ^a	2020	13.7	# of radiologist ^a	2019	45.8
of MRI scanners ^a	2020	0.0	# of nuclear medicine physician ^a	2019	0.8
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2010	21.4
FORMULATING RESPONSE					
			# Public cancer centres per 10.000 cancer		

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

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

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

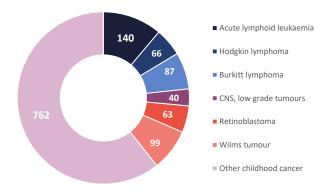
GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1257
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)



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



BURDEN OF CANCER

2,307

Total population (2019)

440,377

Total # cancer cases (2018)

Total # cancer deaths (2018)

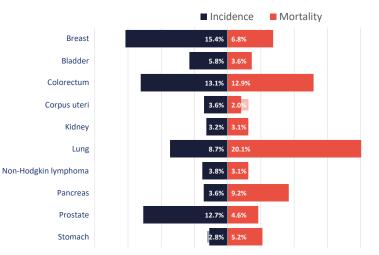
Premature deaths from NCDs (2016) 768

Cancer as % of NCD premature deaths (2016)

935

49.2%

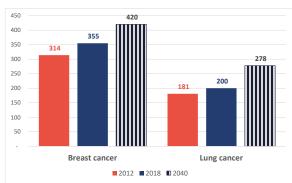
Most common cancer cases (2018)



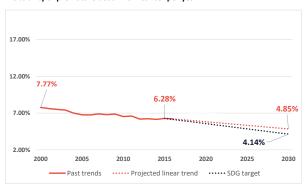


TRENDS

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



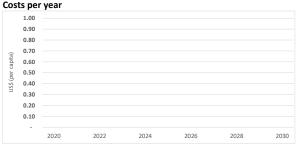
Probability of premature death from cancer per year



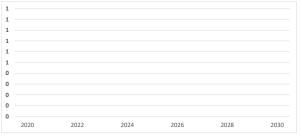
INVESTMENT CASE (2019)

*High income

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



Projected lives saved per year





HEALTH SYSTEM CAPACITY

^a per 10,000 cancer patients			
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WO
registry (i beny			° per 1
Quality of mortality registration***	2007-2016	High	dedi
			time
# of external beam radiotherapy	2019	13.0	# of
(photon,electron) ^a			# of
# of mammographs ^a	2020	69.4	# of
# of CT scanners ^a	2020	39.0	# of
# of MRI scanners ^a	2020	21.7	# of
# of PET or PET/CT scanners ^a	2020	8.7	# of

WORKFORCE		
per 10,000 cancer patients Available staff in Ministry of Health who		
dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist ^a	2019	17.3
# of medical physicist ^a	2019	17.3
# of surgeons a	2014	927.6
# of radiologist ^a	2019	167.7
# of nuclear medicine physician ^a	2019	21.7
# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	3
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	50

# Public cancer centres per 10,000 cancer patients	2019	4.3
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	495

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

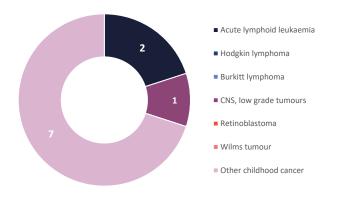
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	80.9
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	don't know
Early detection programme/guidelines	2019	yes
Defined referral system	2019	no

Global Initiative for Childhood Cancer

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

Annual cancer cases (0-14 years old)



MYANMAR

BURDEN OF CANCER

Total population (2019)

54,045,422

Total # cancer cases (2018)
69,554

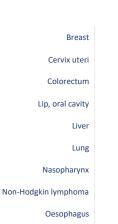
Total # cancer deaths (2018) **51,059**

Premature deaths from NCDs (2016) 144,670

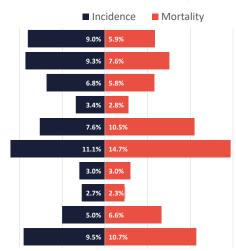
Cancer as % of NCD premature deaths (2016)

25.3%

Most common cancer cases (2018)



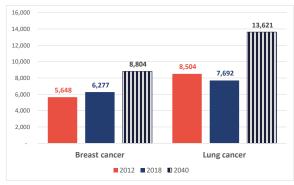
Stomach



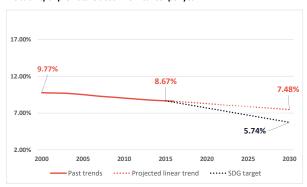


TRENDS

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

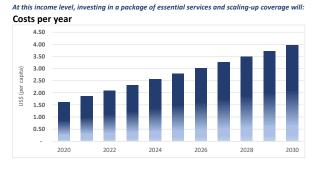


Probability of premature death from cancer per year

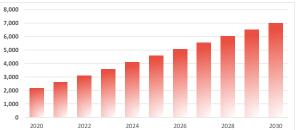


INVESTMENT CASE (2019)









MYANMAR

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	PBCR	WORKFORCE		
registry (PBCR)**	2013	. 55	^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	2.7	# of radiation oncologist ^a	2019	3.6
(photon, electron) ^a	2019	2.7	# of medical physicist ^a	2019	4.3
# of mammographs ^a	2020	0.4	# of surgeons ^a	2013	68.7
# of CT scanners ^a	2020	6.5	# of radiologist ^a	2019	48.9
# of MRI scanners ^a	2020	0.6	# of nuclear medicine physician ^a	2019	0.9
# of PET or PET/CT scanners ^a	2020	0.1	# of medical & pathology lab scientists ^a	2015	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	under development
MPOWER measures fully implemented and achieved	2018	0
Cancer management guidelines	2019	yes
Palliative care included in their operational, integrated NCD plan	2019	yes
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	45

# Public cancer centres per 10,000 cancer patients	2019	0.7
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	11

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

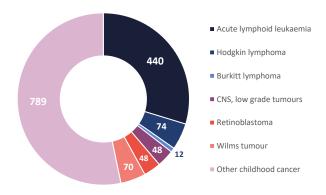
GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1481
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

Annual cancer cases (0-14 years old)



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

MONTENEGRO

BURDEN OF CANCER



627,988

Total # cancer cases (2018) 2,366

(2018) 1,287

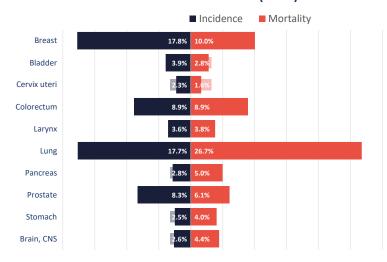
Premature deaths from NCDs (2016)

1,828

Cancer as % of NCD premature deaths (2016)

49.1%

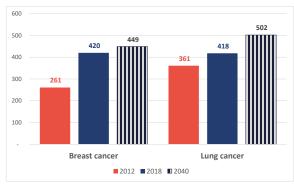
Most common cancer cases (2018)



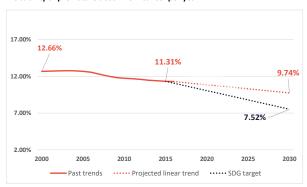


TRENDS

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

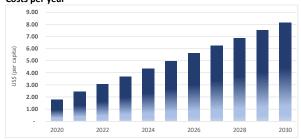


Probability of premature death from cancer per year

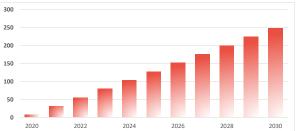


INVESTMENT CASE (2019)





Projected lives saved per year



MONTENEGRO

^a per 10,000 cancer patients					
Availability of population-based cancer	2019 Re	gistration activity	WORKFORCE		
registry (PBCR)**		,	° 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	2010		# of radiation oncologist ^a	2019	25.4
(photon,electron) ^a	2019	8.5	# of medical physicist ^a	2019	4.2
of mammographs ^a	2020	63.4	# of surgeons ^a	n/a	n/a
# of CT scanners ^a	2020	50.7	# of radiologist ^a	2019	211.3
of MRI scanners ^a	2020	21.1	# of nuclear medicine physician ^a	2019	16.9
# 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	4.2
			Farly detection programme / guidelines for		

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	1
Cancer management guidelines	2019	don't know
Palliative care included in their operational, integrated NCD plan	2019	no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	50

# Public cancer centres per 10,000 cancer patients	2019	4.2
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	1583

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

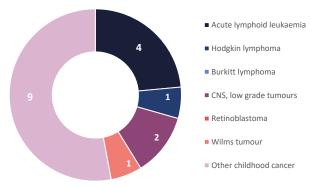
GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	17
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)



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

MONGOLIA

BURDEN OF CANCER



3,225,166

Total # cancer cases (2018) 5,591

Total # cancer deaths (2018)
3,984

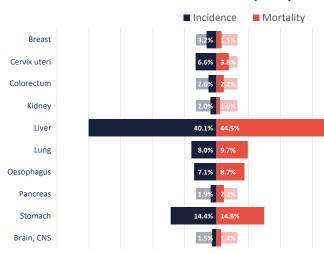
Premature deaths from NCDs (2016)

8,361

Cancer as % of NCD premature deaths (2016)

31.6%

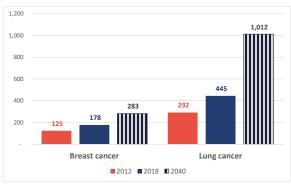
Most common cancer cases (2018)



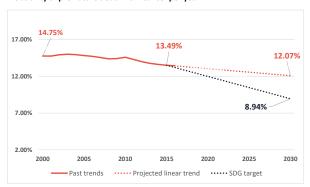
	19.4%	8.2%	49.8%	1.3%	n/a	1.0%
PAFS (population attributable	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
fractions)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			,

TRENDS

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

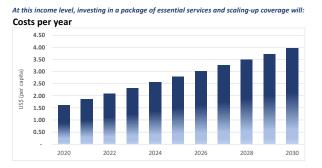


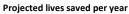
Probability of premature death from cancer per year

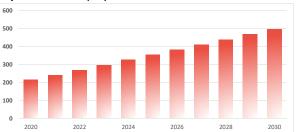


INVESTMENT CASE (2019)

*Lower middle income







Other childhood cancer

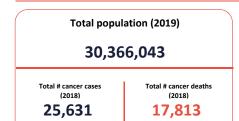
MONGOLIA

vailability of population-based cancer	2019	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	yes
of subsumal beaus and otherwise.			time to cancer # of radiation oncologist ^a	2019	n/a
of external beam radiotherapy photon, electron) ^a	2019	8.9	# of medical physicist ^a	2019	7.2
of mammographs ^a	2020	10.7	# of surgeons ^a	2014	731.5
of CT scanners ^a	2020	44.7	# of radiologist ^a	2019	n/a
of MRI scanners ^a	2020	7.2	# of nuclear medicine physician ^a	2019	5.4
of PET or PET/CT scanners ^a	2020	1.8	# of medical & pathology lab scientists a	2016	n/a
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	55.4
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	2	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	134
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per n	niliion 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	141
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
er vicai cancer screening		700			
	2019	organised	Defined referral system	2019	no
creening programme type		organised	Defined referral system	2019	no
creening programme type	2019	organised PAP smear	Defined referral system Annual cancer cases (0-14 years old)	2019	no
creening programme type creening programme method creening participation rates	2019 2019	organised PAP smear 10%-50%	,	2019	nc
creening programme type creening programme method creening participation rates	2019	organised PAP smear	,		
creening programme type creening programme method creening participation rates arly detection programme/guidelines	2019 2019	organised PAP smear 10%-50%	,	■ Acute	no lymphoid leukaemia in lymphoma
creening programme type creening programme method creening participation rates arly detection programme/guidelines	2019 2019 2019	organised PAP smear 10%-50% yes	Annual cancer cases (0-14 years old)	■ Acute ■ Hodgk	lymphoid leukaemia
creening programme type creening programme method creening participation rates arly detection programme/guidelines	2019 2019 2019	organised PAP smear 10%-50% yes	Annual cancer cases (0-14 years old)	■ Acute ■ Hodgk ■ Burkit	lymphoid leukaemia in lymphoma t lymphoma
creening programme type creening programme method creening participation rates arly detection programme/guidelines	2019 2019 2019	organised PAP smear 10%-50% yes	Annual cancer cases (0-14 years old)	 Acute Hodgk Burkit CNS, le 	lymphoid leukaemia 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

MOZAMBIQUE

BURDEN OF CANCER

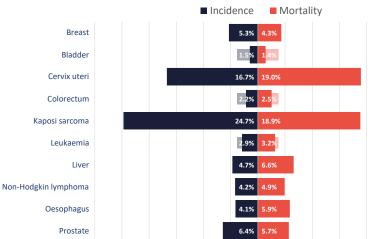


Premature deaths from NCDs (2016) 28,026

Cancer as % of NCD premature deaths (2016)

47.3%

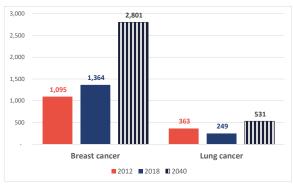
Most common cancer cases (2018)



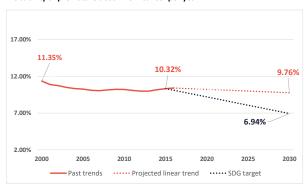
	11.3%	1.5%	52.5%	0.6%	50.1%	0.7%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
Hactions	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			,

TRENDS

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

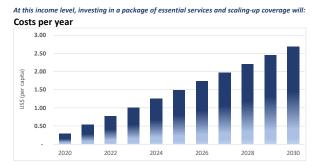


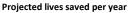
Probability of premature death from cancer per year

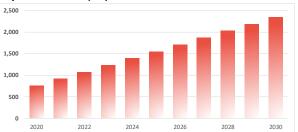


INVESTMENT CASE (2019)









CNS, low grade tumoursRetinoblastomaWilms tumour

Other childhood cancer

MOZAMBIQUE

Availability of population-based cancer	2019	PBCR	WORKFORCE		
registry (PBCR)**	2013	rbek	^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	2019	0.4	# of radiation oncologist ^a	2019	1.:
photon,electron) ^a	2019	0.4	# of medical physicist ^a	2019	0.8
of mammographs ^a	2020	1.6	# of surgeons ^a	2013	72.0
of CT scanners ^a	2020	1.6	# of radiologist ^a	2019	2.
# of MRI scanners ^a	2020	0.4	# 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	n/
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.4
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s
MPOWER measures fully implemented and achieved	2018	0	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 available
# 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	15			
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	185
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)		
Screening participation rates	2019	>50% and <70%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	234	■ Hodgk	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

MAURITANIA

1,933

BURDEN OF CANCER

2,733

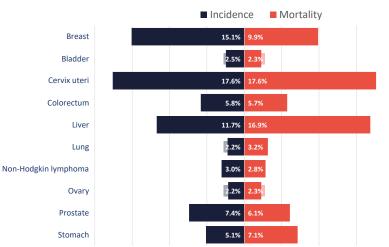


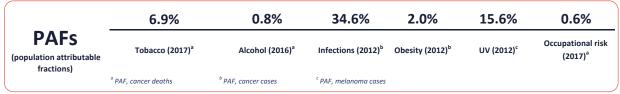
Premature deaths from NCDs (2016) 5,173

Cancer as % of NCD premature deaths (2016)

20.6%

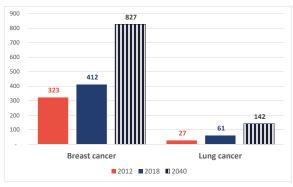
Most common cancer cases (2018)



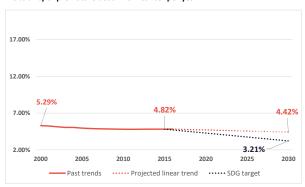


TRENDS

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

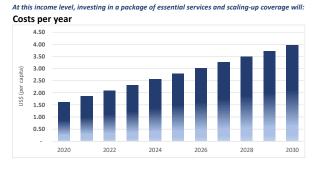


Probability of premature death from cancer per year

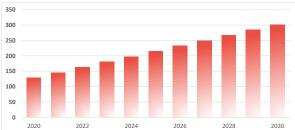


INVESTMENT CASE (2019)

*Lower middle income







Other childhood cancer

MAURITANIA

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients Availability of population-based cancer	2040		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	2010	7.2	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	7.3	# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	32.9	# of surgeons ^a	n/a	n/a
of CT scanners ^a	2020	58.5	# of radiologist ^a	2019	124.
of MRI scanners ^a	2020	14.6	# 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	256.
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# 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	2 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 available
alliative care included in their operational, ntegrated NCD plan	2019	yes	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	
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		
IPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	24
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)		
Early detection programme/guidelines	2019	yes		- A suits	l a la cial la cilca a maia
tofined unformal anatoms	2010		27		lymphoid leukaemia
Defined referral system	2019	no	13		kin lymphoma
			17		t lymphoma
			147	CNS, I	ow grade tumours
			147	■ Retino	oblastoma
			20	■ 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

MAURITIUS

BURDEN OF CANCER

Total population (2019)

1,269,670

Total # cancer cases (2018) 2,861

(2018) 1,377

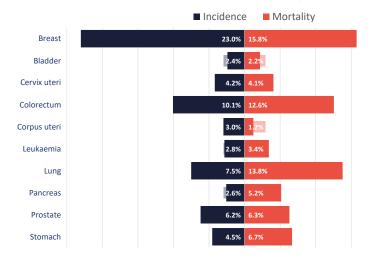
Premature deaths from NCDs (2016)

4,200

Cancer as % of NCD premature deaths (2016)

16.9%

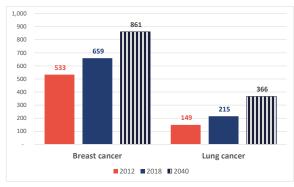
Most common cancer cases (2018)



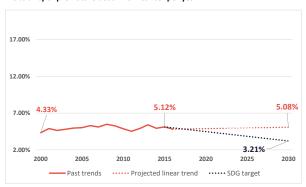
	18.7%	6.1%	13.1%	5.2%	n/a	1.3%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
Hactions	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

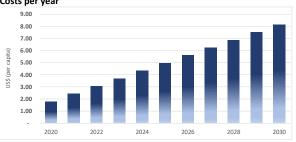


Probability of premature death from cancer per year

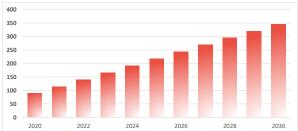


INVESTMENT CASE (2019)





Projected lives saved per year



Retinoblastoma ■ Wilms tumour

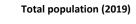
Other childhood cancer

MAURITIUS

[°] per 10,000 cancer patients Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
egistry (PBCR)** Quality of mortality registration***	2007-2016	High	^o per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their	2019	ye
quanty of mortality registration	2007-2010	rigii	time to cancer		
# of external beam radiotherapy photon, electron) a	2019	10.5	# of radiation oncologist ^a # of medical physicist ^a	2019 2019	n/: 17.
# of mammographs ^a	2020	24.5	# of surgeons ^a	2014	307.0
# of CT scanners ^a	2020	28.0	# of radiologist ^a	2019	n/a
# of MRI scanners ^a	2020	21.0	# of nuclear medicine physician ^a	2019	7.
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2011	3.
FORMULATING RESPONSE					
integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	3.5
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	3	Pathology services	2019	generally availabl
Cancer management guidelines	2019	no	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 available
# of treatment services (surgery, radiotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	124
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per r	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	80.8	Annual cancer cases (0-14 years old)	2020	2
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
Screening programme type	2019	n/a	Defined referral system	2019	
Screening programme method	2019	n/a	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	n/a	Ailliuai calicei cases (0-14 years old)		
Early detection programme/guidelines	2019	no		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	4		in lymphoma
			2	■ Burkit	t lymphoma
			1	CNS, le	ow grade tumours
			18	- Datin	



BURDEN OF CANCER



18,628,749

Total # cancer cases (2018)
19,767

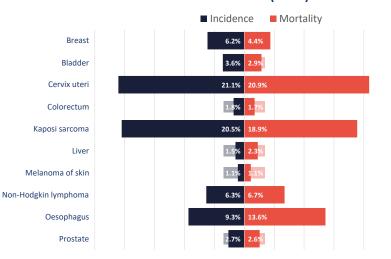
Total # cancer deaths (2018)
13,779

Premature deaths from NCDs (2016) 13,838

Cancer as % of NCD premature deaths (2016)

47.6%

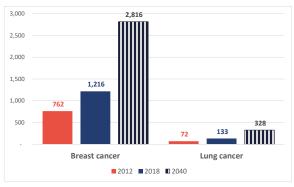
Most common cancer cases (2018)



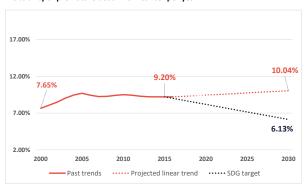


TRENDS

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

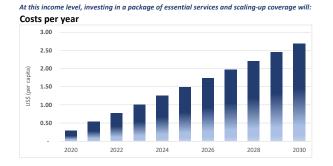


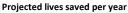
Probability of premature death from cancer per year

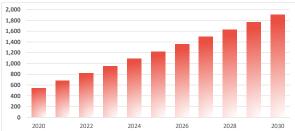


INVESTMENT CASE (2019)

*Low income







RetinoblastomaWilms tumour

Other childhood cancer



^o per 10,000 cancer patients Availability of population-based cancer	2010	PRCP	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	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	n/a
of mammographs ^a	2020	2.5	# of surgeons ^a	2014	30.9
of CT scanners ^a	2020	3.5	# of radiologist ^a	2019	1.0
of MRI scanners ^a	2020	0.5	# of nuclear medicine physician ^a	2019	0.0
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	n/a	# Public cancer centres per 10,000 cancer patients	2019	-
ICCP (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 ochieved	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, Integrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally available
f of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	8
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	110
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
Screening programme type	2019	organised	Defined referral system	2019	n
Screening programme method	2019	visual inspection	Annual cancer cases (0.14 years old)		
creening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	140		in lymphoma
			62	■ Burkit	t lymphoma
			33		ow grade tumours
			42	= CN3, I0	ow grade turnours

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

MALAYSIA

BURDEN OF CANCER

Total population (2019)

31,949,789

Total # cancer cases (2018)
43,837

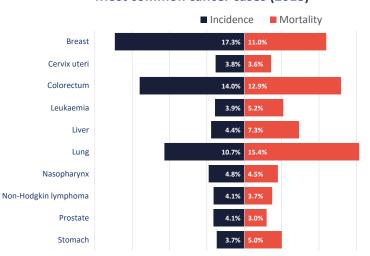
Total # cancer deaths (2018)
26,395

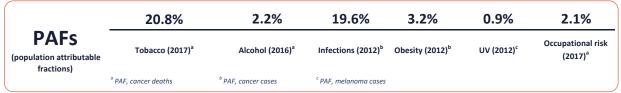
Premature deaths from NCDs (2016) 50,436

Cancer as % of NCD premature deaths (2016)

32.0%

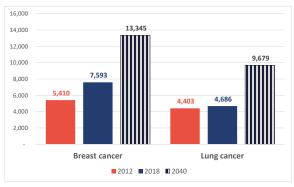
Most common cancer cases (2018)



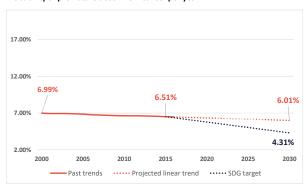


TRENDS

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

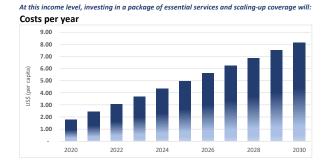


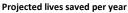
Probability of premature death from cancer per year

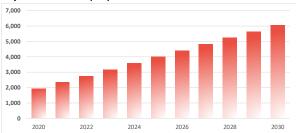


INVESTMENT CASE (2019)

*Upper middle income







Other childhood cancer

MALAYSIA

per 10,000 cancer patients Availability of population-based cancer			WORKFORCE		
egistry (PBCR)**	2019	High quality PBCR	^a per 10,000 cancer patients		
uality of mortality registration***	2007-2016	Very low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy			# of radiation oncologist ^a	2019	3.0
photon,electron) ^a	2019	12.3	# of medical physicist ^a	2019	65.2
of mammographs ^a	2020	44.3	# of surgeons ^a	2011	448.7
of CT scanners ^a	2020	46.3	# of radiologist ^a	2019	114.1
of MRI scanners ^a	2020	21.0	# of nuclear medicine physician ^a	2019	114.1
of PET or PET/CT scanners ^a	2020	3.6	# of medical & pathology lab scientists ^a	2015	n/a
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.8
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	1	Pathology services	2019	generally available
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
alliative care included in their operational, tegrated 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	177
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	20			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	83.4	Annual cancer cases (0-14 years old)	2020	809
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
creening programme type	2019	opportunistic	Defined referral system	2019	no
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			
				■ Acute	lymphoid leukaemia
defined referral system	2019	yes	241	■ Hodgk	rin lymphoma
				■ Burkit	t lymphoma
			429	CNS, I	ow grade tumours
			429		ow grade tumours
				■ Retino	

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

NAMIBIA

BURDEN OF CANCER

Total population (2019)

2,494,524

Total # cancer cases (2018)
2,200

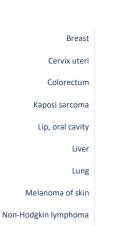
Total # cancer deaths (2018)
1,238

Premature deaths from NCDs (2016) 3,260

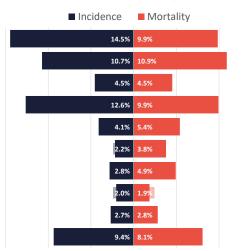
Cancer as % of NCD premature deaths (2016)

19.6%

Most common cancer cases (2018)



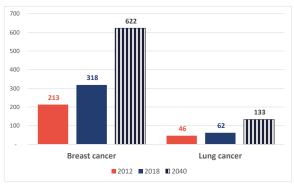
Prostate



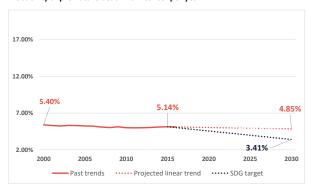
	13.0%	5.9%	26.9%	1.9%	45.6%	2.5%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
tractions	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

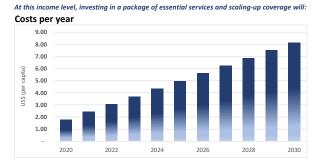


Probability of premature death from cancer per year

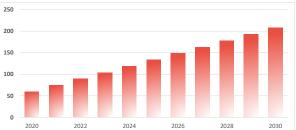


INVESTMENT CASE (2019)

*Upper middle income







NAMIBIA

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	9.1	# of radiation oncologist ^a	2019	n/a
photon, electron) ^a	2019	5.1	# of medical physicist ^a	2019	27.3
f of mammographs ^a	2020	22.7	# of surgeons ^a	2013	377.3
f of CT scanners ^a	2020	54.5	# of radiologist ^a	2019	n/a
of MRI scanners ^a	2020	9.1	# of nuclear medicine physician ^a	2019	18.2
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2004	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	9.1
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't know
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, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	29
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per r	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	9:
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	ne
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		■ Acute I	ymphoid leukaemia
Defined referral system	2019	no	15		n lymphoma
			4		lymphoma
			50		w grade tumours
			4		blastoma
			5	■ Wilms	tumour
			10	■ Other o	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

NIGER

BURDEN OF CANCER



23,310,719

Total # cancer cases (2018) **8,674**

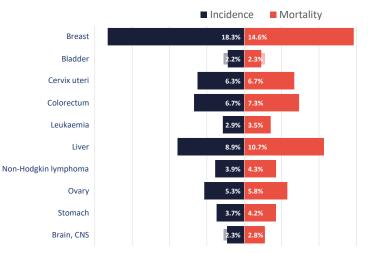
Total # cancer deaths (2018)
7,115

Premature deaths from NCDs (2016) 23,111

Cancer as % of NCD premature deaths (2016)

17.2%

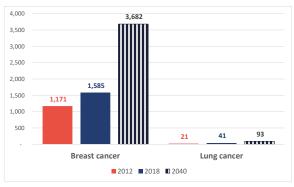
Most common cancer cases (2018)



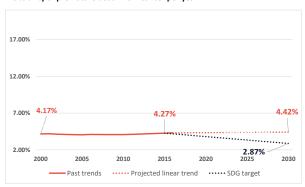


TRENDS

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

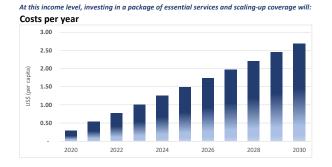


Probability of premature death from cancer per year

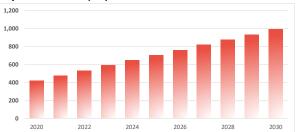


INVESTMENT CASE (2019)

*Low income







NIGER

HEALTH SYSTEM CAPACITY

vailability of population-based cancer	2010	DD.CD.	WORKFORCE		
egistry (PBCR)**	2019	PBCR	° 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	ує
of external beam radiotherapy	2019	1.2	# of radiation oncologist ^a	2019	n/
photon, electron) ^a	2019	1.2	# of medical physicist ^a	2019	2.
of mammographs ^a	2020	10.4	# of surgeons ^a	2014	35.
of CT scanners ^a	2020	4.6	# of radiologist ^a	2019	2.
of MRI scanners ^a	2020	0.0	# of nuclear medicine physician ^a	2019	2.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2009	425.
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.2
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 availabl
ancer 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 availab
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	miliion 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		
limination of Cervical Cancer	2018	n/a	Global Initiative for Childhood Cancer Annual cancer cases (0-14 years old)	2020	158
PV vaccination programme coverage	2018 2019	n/a no	Annual cancer cases (0-14 years old)	2020 2019	158 n
PV vaccination programme coverage ervical cancer screening creening programme type	2019	no	Annual cancer cases (0-14 years old) Early detection programme/guidelines	2019	n
PV vaccination programme coverage ervical cancer screening creening programme type creening programme method	2019 2019 2019	no n/a n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines	2019	n
PV vaccination programme coverage ervical cancer screening creening programme type creening programme method creening participation rates	2019 2019 2019 2019	no n/a n/a n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	n
PV vaccination programme coverage ervical cancer screening creening programme type creening programme method creening participation rates	2019 2019 2019	no 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
PV vaccination programme coverage ervical cancer screening creening programme type creening programme method creening participation rates arly detection programme/guidelines	2019 2019 2019 2019	no n/a n/a n/a	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019 2019	n n
PV vaccination programme coverage ervical cancer screening creening programme type creening programme method creening participation rates arly detection programme/guidelines	2019 2019 2019 2019 2019	no n/a n/a n/a no	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 ymphoma
PV vaccination programme coverage ervical cancer screening creening programme type creening programme method creening participation rates arly detection programme/guidelines	2019 2019 2019 2019 2019	no n/a n/a n/a 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 lym Hodgkin h Burkitt lyn	n n nphoid leukaemia ymphoma
PV vaccination programme coverage ervical cancer screening	2019 2019 2019 2019 2019	no n/a n/a n/a 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 lym Hodgkin h Burkitt lyn	n nphoid leukaemia ymphoma mphoma grade tumours
PV vaccination programme coverage ervical cancer screening creening programme type creening programme method creening participation rates arly detection programme/guidelines	2019 2019 2019 2019 2019	no n/a n/a n/a 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 lym Hodgkin h Burkitt lyi CNS, low	n nphoid leukaemia ymphoma mphoma grade tumours stoma

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

NIGERIA

BURDEN OF CANCER

Total population (2019)

200,963,603

Total # cancer cases (2018)
115,950

Total # cancer deaths (2018) 70,327

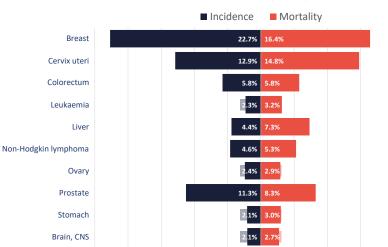
Premature deaths from NCDs (2016)

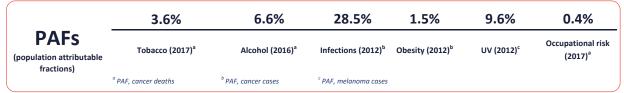
289,701

Cancer as % of NCD premature deaths (2016)

18.2%

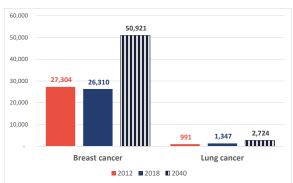
Most common cancer cases (2018)



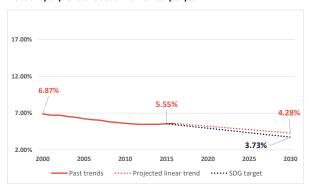


TRENDS

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

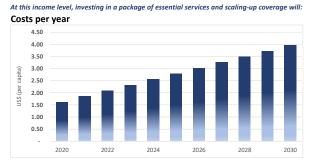


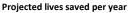
Probability of premature death from cancer per year

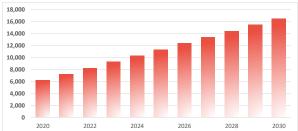


INVESTMENT CASE (2019)

*Lower middle income







2019

2019

2019

2019

2015-2017

0 cancer(s)

available generally not

available

generally available generally not

NIGERIA

^a 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	No coverage	dedicates significant proportion of their time to cancer	2019	no
# of external beam radiotherapy	2019	0.5	# of radiation oncologist ^a	2019	6.0
(photon,electron) ^a	2019	0.5	# of medical physicist ^a	2019	8.6
# of mammographs ^a	2020	8.6	# of surgeons ^a	2014	157.6
# of CT scanners ^a	2020	15.8	# of radiologist ^a	2019	30.2
# of MRI scanners ^a	2020	5.0	# of nuclear medicine physician ^a	2019	0.3
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists a	2008	1095.6
FORMULATING RESPONSE					
Integrated NCD plan	2019 u n	der development	# Public cancer centres per 10,000 cancer	2019	-

Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)
MPOWER measures fully implemented and achieved	2018	1	Pathology services
Cancer management guidelines	2019	no	Bone marrow transplantation capacity
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	0	Availability of opioids* for pain management
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per m
Breast cancer screening program: Starting age, target population	2019	n/a	

per miliion inhabitants per day

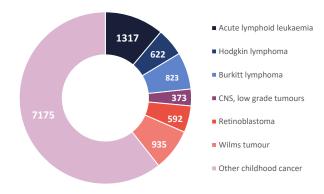
GLOBAL INITIATIVES

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

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

Annual cancer cases (0-14 years old)	2020	11837
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know

Annual cancer cases (0-14 years old)



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

NICARAGUA

BURDEN OF CANCER



6,545,503

Total # cancer cases (2018) **7,956**

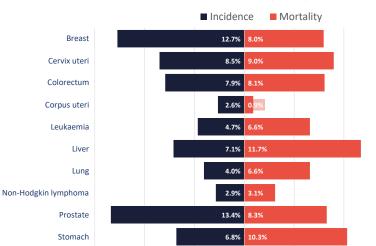
Total # cancer deaths (2018)
4,554

Premature deaths from NCDs (2016) 9,628

Cancer as % of NCD premature deaths (2016)

22.8%

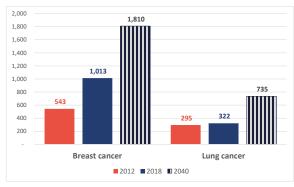
Most common cancer cases (2018)



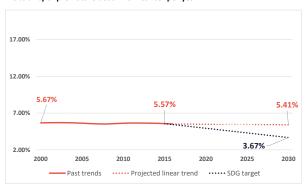


TRENDS

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

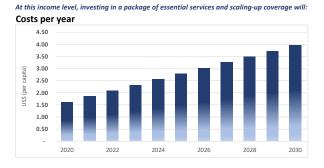


Probability of premature death from cancer per year

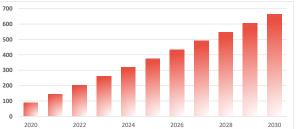


INVESTMENT CASE (2019)

*Lower middle income



Projected lives saved per year



Other childhood cancer

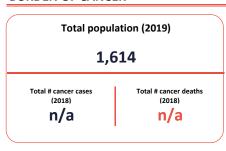
NICARAGUA

Availability of population-based cancer	2019	Registration activity	WORKFORCE		
egistry (PBCR)**	2019	Registration activity	^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	n/a
of external beam radiotherapy	2019	3.8	# of radiation oncologist ^a	2019	7.9
ohoton, electron) ^a	2013	5.5	# of medical physicist ^a	2019	11.3
of mammographs ^a	2020	35.2	# of surgeons ^a	2014	658.6
of CT scanners ^a	2020	30.2	# of radiologist ^a	2019	377.
of MRI scanners ^a	2020	15.1	# of nuclear medicine physician ^a	2019	2.5
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2018	n/a
ORMULATING RESPONSE					
tegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	5.0
CCP (including cancer types)	2019	under development	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 available
alliative care included in their operational, ntegrated 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	59
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	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	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			
-		-		■ Acute	lymphoid leukaemia
efined referral system	2019	yes	80	■ Hodgki	in lymphoma
				■ Burkitt	lymphoma
			157	CNS, lo	ow grade tumours
					blastoma
			20	2 ■ Wilms	tumour

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



BURDEN OF CANCER









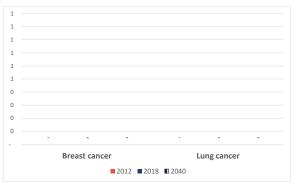




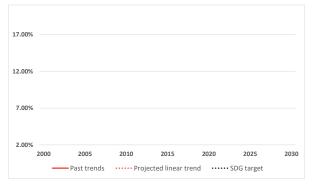
	n/a	n/a	n/a	n/a	n/a	n/a
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012)°	Occupational risk (2017) ^a
iractionsy	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases)

TRENDS

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



Probability of premature death from cancer per year



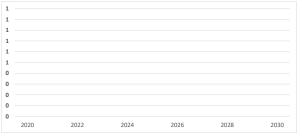
INVESTMENT CASE (2019)

*Not Classified

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



Projected lives saved per year





HEALTH SYSTEM CAPACITY

per 10,000 concer patients Availability of population-based cancer	2019	Registration activity	WORKFORCE		
egistry (PBCR)** Quality of mortality registration***	2007-2016	No coverage	^a 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	2010	,	# 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/
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/
ORMULATING RESPONSE					
tegrated 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
1POWER measures fully implemented and chieved	2018	3	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 availabl
of treatment services (surgery, diotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	20
east 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	ye
reening programme method	2019	PAP smear			
creening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no			
				■ Acute I	ymphoid leukaemia
efined referral system	2019	yes		■ Hodgki	in lymphoma
				Burkitt	lymphoma
				CNS, lo	w grade tumours
				■ Retino	blastoma
				■ Wilms	tumour
				■ Other o	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

■ Mortality

NETHERLANDS

BURDEN OF CANCER

Total population (2019)

17,097,123

Total # cancer cases (2018)
119,923

Total # cancer deaths (2018)
47,286

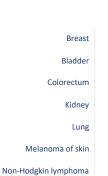
Premature deaths from NCDs (2016) 30,621

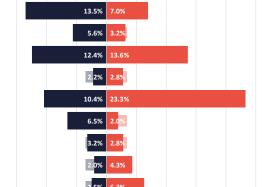
Cancer as % of NCD premature deaths (2016)

57.7%

Most common cancer cases (2018)

■ Incidence





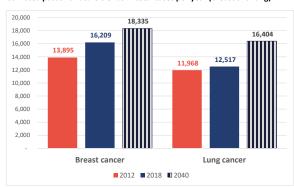
Pancreas Prostate

Oesophagus

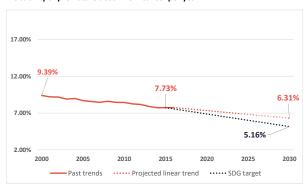


TRENDS

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



Probability of premature death from cancer per year



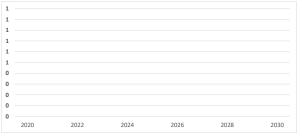
INVESTMENT CASE (2019)

*High income

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



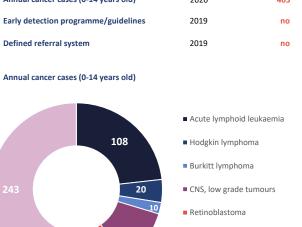
Projected lives saved per year



NETHERLANDS

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	2019	10.7	# of radiation oncologist ^a	2019	21.8
(photon,electron) ^a	2019	10.7	# of medical physicist ^a	2019	34.9
# of mammographs ^a	2020	5.3	# of surgeons ^a	2013	459.8
# of CT scanners ^a	2020	21.7	# of radiologist ^a	2019	172.4
# of MRI scanners ^a	2020	20.3	# of nuclear medicine physician ^a	2019	12.6
# of PET or PET/CT scanners ^a	2020	5.2	# 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	0.3
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)		3 cancer(s
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	13563
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	niliion 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	45.5	Annual cancer cases (0-14 years old)	2020	465
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	45.5
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	HPV test
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes



■ Wilms tumour

Other childhood cancer

NORWAY

BURDEN OF CANCER

Total population (2019)

5,378,859

Total # cancer cases (2018) **34,299**

Total # cancer deaths (2018)
11,791

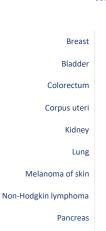
Premature deaths from NCDs (2016)

7,365

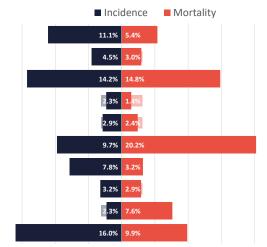
Cancer as % of NCD premature deaths (2016)

50.3%

Most common cancer cases (2018)



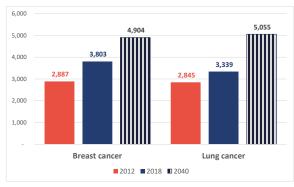
Prostate



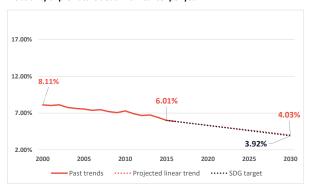


TRENDS

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



Probability of premature death from cancer per year



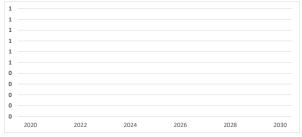
INVESTMENT CASE (2019)

*High income

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



Projected lives saved per year



NORWAY

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 time to cancer	2019	yes
f of external beam radiotherapy	2019	12.5	# of radiation oncologist ^a	2019	42.0
photon,electron) ^a	2019	12.5	# of medical physicist ^a	2019	54.2
of mammographs ^a	2020	29.2	# of surgeons ^a	2012	1093.6
of CT scanners ^a	2020	51.0	# of radiologist ^a	2019	238.5
of MRI scanners ^a	2020	45.8	# of nuclear medicine physician ^a	2019	16.0
t of PET or PET/CT scanners ^a	2020	2.3	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer	2019	n/a

1

50

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and	2019	1

2018

2019

2019

achieved **Cancer management guidelines** Palliative care included in their operational, 2019 don't know integrated NCD plan # of treatment services (surgery, 2019

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

# Public cancer centres per 10,000 cancer patients	2019	n/a
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	9875

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

GLOBAL INITIATIVES

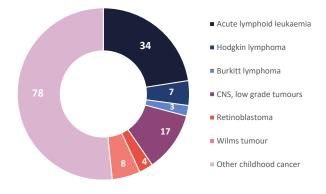
radiotherapy, chemotherapy)

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	85.6
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	HPV test
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	151
Early detection programme/guidelines	2019	yes
Defined referral system	2019	ves

Annual cancer cases (0-14 years old)



NEPAL

BURDEN OF CANCER

Total population (2019)

28,608,715

Total # cancer cases (2018)
26,184

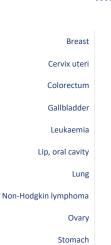
Total # cancer deaths (2018)
19,413

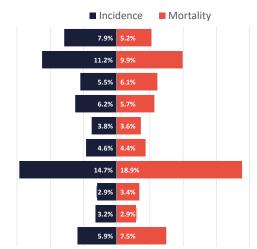
Premature deaths from NCDs (2016) 53,097

Cancer as % of NCD premature deaths (2016)

21.0%

Most common cancer cases (2018)

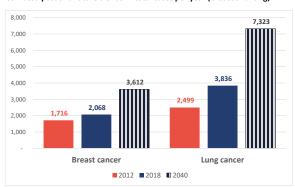




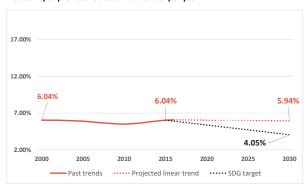
	22.7%	3.2%	20.0%	0.4%	0.0%	1.7%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

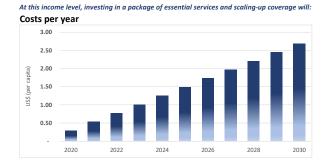


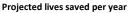
Probability of premature death from cancer per year

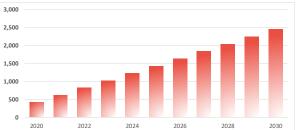


INVESTMENT CASE (2019)

*Low income







Other childhood cancer

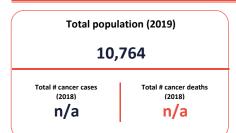
NEPAL

per 10,000 cancer patients Availability of population-based cancer	2019	PBCR	WORKFORCE			
registry (PBCR)**	2019	PBCK	° 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	
f of external beam radiotherapy	2019	2.7	# of radiation oncologist ^a	2019	n/a	
photon, electron) ^a	2013		# of medical physicist ^a	2019	5.0	
f of mammographs ^a	2020	0.8	# of surgeons ^a	2014	97.0	
of CT scanners ^a	2020	3.8	# of radiologist ^a	2019	n/a	
of MRI scanners ^a	2020	1.1	# of nuclear medicine physician ^a	2019	0.8	
f of PET or PET/CT scanners ^a	2020	0.8	# of medical & pathology lab scientists ^a	2004	n/a	
FORMULATING RESPONSE						
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.1	
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	3	Pathology services	2019	generally no available	
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no available	
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no available	
f of treatment services (surgery, adiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	2:	
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	89	
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no	
Screening programme type	2019	organised	Defined referral system	2019	no	
Screening programme method	2019	visual inspection				
Screening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)			
Early detection programme/guidelines	2019	10%-50% yes		- A I	mbadal lauter eet	
Defined referral system	2019	yes	■ Acute lymphoid leukaemia			
	2013	, c3	Yes 266 ■ Hodgkin lymphoma ■ Burkitt lymphoma ■ CNS, low grade tumo			
			4/5	■ Retinobla		
			43			

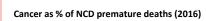
^{***}The mortality estimates for this country have a high degree of uncertainty because they are not based on any national NCD mortality data

NAURU

BURDEN OF CANCER

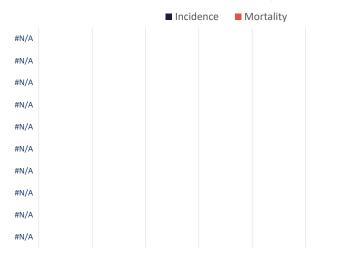






n/a

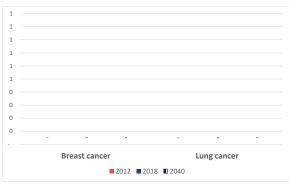
Most common cancer cases (2018)



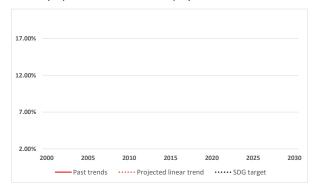
	n/a	n/a	n/a	n/a	n/a	n/a
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012)°	Occupational risk (2017) ^a
iractions	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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



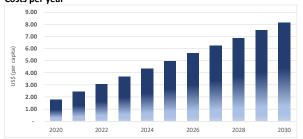
Probability of premature death from cancer per year

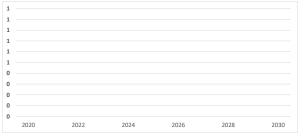


INVESTMENT CASE (2019)

*Upper middle income







NAURU

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients Availability of population-based cancer			WORKFORCE		
egistry (PBCR)**	2019	No information	° 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	n
of external beam radiotherapy	2019	n/a	# of radiation oncologist ^a	2019	n/
photon,electron) ^a	2019	Пуа	# 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	2015	n/
ORMULATING RESPONSE					
tegrated 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	1	Pathology services	2019	generally available
ancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no available
alliative care included in their operational, tegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally availabl
of treatment services (surgery, diotherapy, 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	n/a
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	ne
creening programme type	2019	n/a	Defined referral system	2019	don't knov
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		■ A ak - 1	umphoid leulease !-
efined referral system	2019	yes			ymphoid leukaemia n lymphoma
		•			lymphoma
					w grade tumours
				■ Retino	olastoma
				■ Wilms	tumour
				■ Other o	childhood cancer

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

NEW ZEALAND

BURDEN OF CANCER

Total population (2019)
4,783,062

Total # cancer cases

Total # cancer deaths

Total # cancer cases (2018)

35,897

Total # cancer deat (2018)

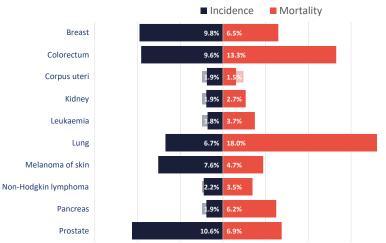
9,747

Premature deaths from NCDs (2016) 6,556

Cancer as % of NCD premature deaths (2016)

51.0%

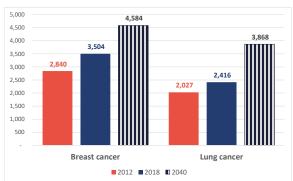




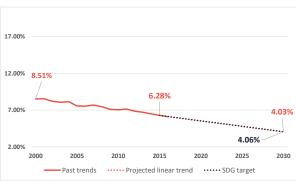


TRENDS

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



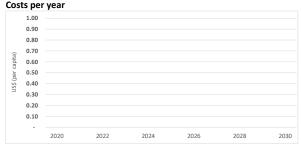
Probability of premature death from cancer per year

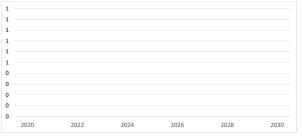


INVESTMENT CASE (2019)

*High income

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





NEW ZEALAND

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	7.5	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	7.5	# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	30.1	# of surgeons ^a	2015	238.5
# of CT scanners ^a	2020	24.0	# of radiologist ^a	2019	133.2
of MRI scanners ^a	2020	18.1	# of nuclear medicine physician ^a	2019	7.0
# of PET or PET/CT scanners ^a	2020	1.4	# of medical & pathology lab scientists ^a	2013	900.4

FORMULATING RESPONSE

Integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)
MPOWER measures fully implemented and achieved	2018	4	Pathology services
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity
Palliative care included in their operational, integrated NCD plan	2019	n/a	Palliative care availability: community/home-based care
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management 201
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per miliion
Breast cancer screening program: Starting age, target population	2019	45	

# Public cancer centres per 10,000 cancer patients	2019	1.7
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	4680

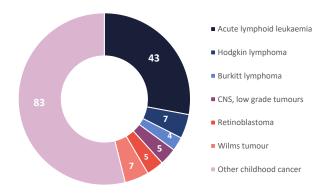
on inhabitants per day

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	58
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	HPV test
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	154
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes



OMAN

BURDEN OF CANCER

3,322



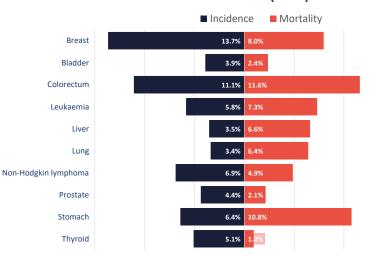
1,681

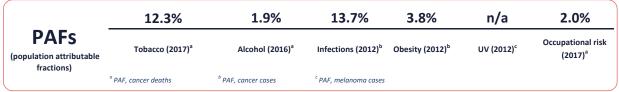
Premature deaths from NCDs (2016) 3,903

Cancer as % of NCD premature deaths (2016)

20.2%

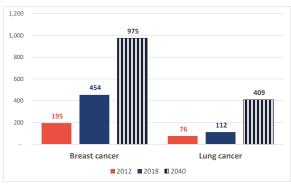
Most common cancer cases (2018)



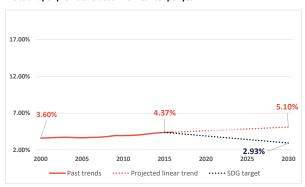


TRENDS

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



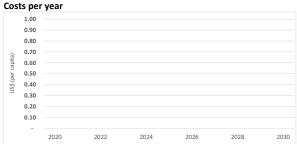
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*High income

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





OMAN

HEALTH SYSTEM CAPACITY

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	Very low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	уе
of external beam radiotherapy	2019	6.0	# of radiation oncologist ^a	2019	n/s
photon, electron) ^a	2013	0.0	# of medical physicist ^a	2019	75.
of mammographs ^a	2020	45.2	# of surgeons ^a	2013	1673.
of CT scanners ^a	2020	138.5	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	111.4	# of nuclear medicine physician ^a	2019	27.
of PET or PET/CT scanners ^a	2020	6.0	# of medical & pathology lab scientists ^a	2017	n/
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# 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	1 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 availabl
alliative care included in their operational, stegrated 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	14
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	17
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)		
		n/a			
arly detection programme/guidelines	2019	no		■ Acute I	ymphoid leukaemia
efined referral system	2019	no	34	■ Hodgki	n lymphoma
				Burkitt	lymphoma
			96	CNS, lo	w grade tumours
			5 9	■ Retino	blastoma
			9	■ Wilms	tumour
			9 9	■ Other o	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

PAKISTAN

BURDEN OF CANCER



216,565,317

Total # cancer cases (2018)
173,937

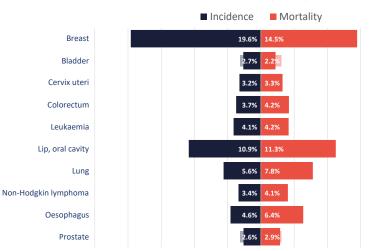
Total # cancer deaths (2018)
118,442

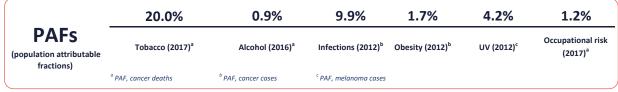
Premature deaths from NCDs (2016) 337,006

Cancer as % of NCD premature deaths (2016)

23.3%

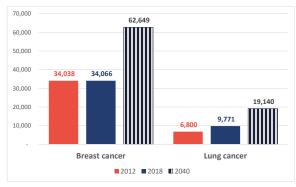
Most common cancer cases (2018)



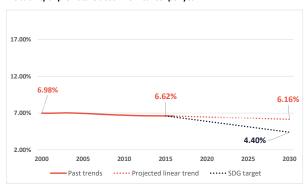


TRENDS

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

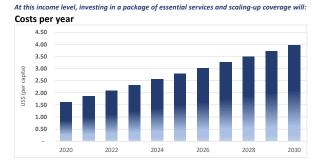


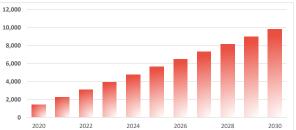
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*Lower middle income





PAKISTAN

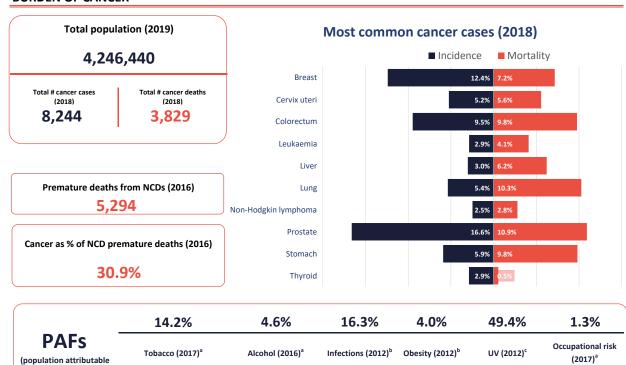
HEALTH SYSTEM CAPACITY

Availability of population-based cancer	2010	Registration activity	WORKFORCE		
egistry (PBCR)**	2019	negistration activity	° 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	3.3	# of radiation oncologist ^a	2019	1.
photon, electron) a	2013	3.3	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	0.9	# of surgeons ^a	2012	128.
of CT scanners ^a	2020	17.2	# of radiologist ^a	2019	57.
of MRI scanners ^a	2020	4.6	# of nuclear medicine physician ^a	2019	14.
of PET or PET/CT scanners ^a	2020	0.3	# of medical & pathology lab scientists ^a	2015	n/
FORMULATING RESPONSE					
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally availabl
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availabl
Palliative care included in their operational, integrated NCD plan	2019	n/a	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	
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	821
HPV vaccination programme coverage Cervical cancer screening	2018 2019	n/a no	Annual cancer cases (0-14 years old) Early detection programme/guidelines	2020 2019	821 no
					n
Cervical cancer screening	2019	no	Early detection programme/guidelines Defined referral system	2019	n
Cervical cancer screening Greening programme type	2019 2019	no n/a n/a	Early detection programme/guidelines	2019	n
Cervical cancer screening coreening programme type coreening programme method coreening participation rates	2019 2019 2019	no n/a n/a n/a	Early detection programme/guidelines Defined referral system	2019	n
Cervical cancer screening creening programme type creening programme method creening participation rates	2019 2019 2019 2019	no n/a n/a	Early detection programme/guidelines Defined referral system	2019 2019	n
Cervical cancer screening Screening programme type Screening programme method	2019 2019 2019 2019	no n/a n/a n/a	Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019	n
Cervical cancer screening coreening programme type coreening programme method coreening participation rates carly detection programme/guidelines	2019 2019 2019 2019 2019	no n/a n/a n/a no	Early detection programme/guidelines Defined referral system	2019 2019 Acute I Hodgki	n n lymphoid leukaemia
Cervical cancer screening screening programme type screening programme method screening participation rates scarly detection programme/guidelines	2019 2019 2019 2019 2019	no n/a n/a n/a no	Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019 Acute l Hodgki	n n lymphoid leukaemia in lymphoma : lymphoma
Cervical cancer screening screening programme type screening programme method screening participation rates scarly detection programme/guidelines	2019 2019 2019 2019 2019	no n/a n/a n/a no	Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019 Acute I Hodgki Burkitt CNS, lo	n n lymphoid leukaemia in lymphoma
Cervical cancer screening screening programme type screening programme method screening participation rates scarly detection programme/guidelines	2019 2019 2019 2019 2019	no n/a n/a n/a no	Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019 2019 Acute I Hodgki Burkitt CNS, lo	n n lymphoid leukaemia in lymphoma : lymphoma ow grade tumours 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

PANAMA

BURDEN OF CANCER



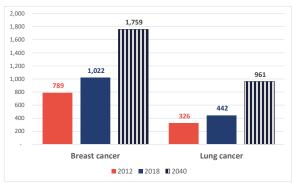
^b PAF, cancer cases

TRENDS

fractions)

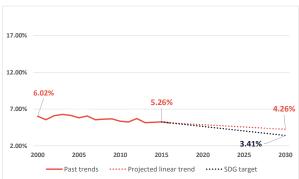
Estimated past and future trends in total cases per year (breast and lung)

^a PAF, cancer deaths



Probability of premature death from cancer per year

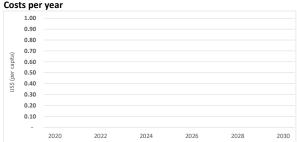
^c PAF, melanoma cases



INVESTMENT CASE (2019)

*High income

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





PANAMA

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	no
of external beam radiotherapy	2040	0.7	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	9.7	# of medical physicist ^a	2019	18.2
of mammographs ^a	2020	95.8	# of surgeons ^a	2014	513.1
of CT scanners ^a	2020	47.3	# of radiologist ^a	2019	198.9
f of MRI scanners ^a	2020	14.6	# of nuclear medicine physician ^a	2019	6.3
of PET or PET/CT scanners ^a	2020	2.4	# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

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

# Public cancer centres per 10,000 cancer patients	2019	1.2
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally available
Availability of opioids* for pain management	2015-2017	354

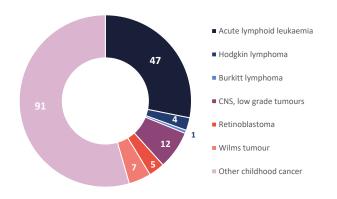
^{*}Defined daily doses for statistical purposes (S-DDD) per miliion inhabitants per day

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	68.5
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	PAP smear
Screening participation rates	2019	10%-50%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	167
Early detection programme/guidelines	2019	no
Defined referral system	2019	ves



PERU

BURDEN OF CANCER

66,627



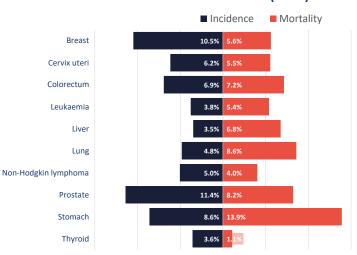
Premature deaths from NCDs (2016) 45,324

33,098

Cancer as % of NCD premature deaths (2016)

27.1%

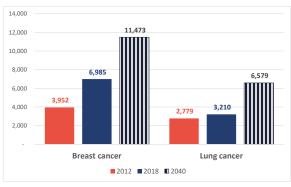
Most common cancer cases (2018)



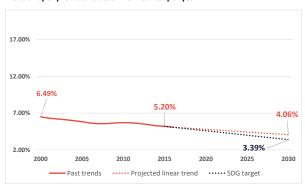


TRENDS

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



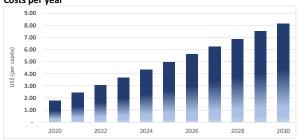
Probability of premature death from cancer per year



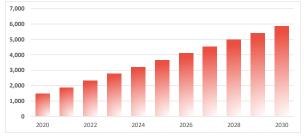
INVESTMENT CASE (2019)

*Upper middle income









PERU

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients Availability of population-based cancer	2019	High quality DDCD	WORKFORCE		
egistry (PBCR)**	2019	High quality PBCR	° 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	7.1	# of radiation oncologist ^a	2019	n/
photon, electron) ^a			# of medical physicist ^a	2019	n/
of mammographs ^a	2020	28.5	# of surgeons ^a	2014	1321.
of CT scanners ^a	2020	11.7	# of radiologist ^a	2019	115.
f of MRI scanners ^a	2020	3.5	# of nuclear medicine physician ^a	2019	6.
of PET or PET/CT scanners ^a	2020	0.6	# of medical & pathology lab scientists ^a	2012	226.
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	3 cancer(
IPOWER measures fully implemented and chieved	2018	2	Pathology services	2019	generally availab
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't kno
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no availab
of treatment services (surgery, adiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	17
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants	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	68.3	Annual cancer cases (0-14 years old)	2020	109
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
creening programme type	2019	organised	Defined referral system	2019	ye
creening programme method	2019	PAP smear			
creening participation rates	2019		Annual cancer cases (0-14 years old)		
		10%-50%			
arly detection programme/guidelines	2019	yes		■ Acute l	ymphoid leukaemia
efined referral system	2019	yes	289	■ Hodgki	in lymphoma
				Burkitt	lymphoma
			589	■ CNS. Io	w grade tumours
			39		blastoma
			76	■ Wilms	tumour
			44 42	■ 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

PHILIPPINES

BURDEN OF CANCER



108,116,622

Total # cancer cases (2018) 141,021

Total # cancer deaths (2018) 86,337

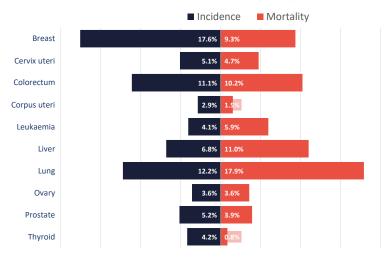
Premature deaths from NCDs (2016)

245,612

Cancer as % of NCD premature deaths (2016)

18.2%

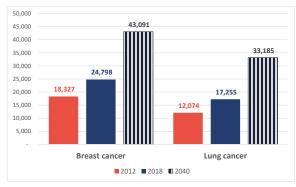
Most common cancer cases (2018)



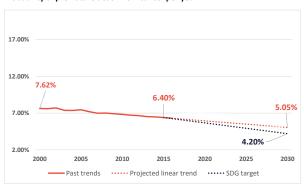


TRENDS

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

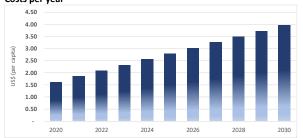


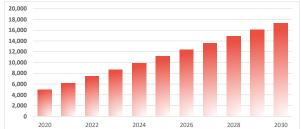
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







PHILIPPINES

HEALTH SYSTEM CAPACITY

° per 10,000 cancer patients		
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR
Quality of mortality registration***	2007-2016	Medium
# of external beam radiotherapy (photon,electron) ^a	2019	3.6
# of mammographs ^a	2020	5.6
# of CT scanners ^a	2020	21.3
# of MRI scanners ^a	2020	2.2
# of PET or PET/CT scanners ^a	2020	0.5

WORKFORCE		
° per 10,000 cancer patients Available staff in Ministry of Health who		
dedicates significant proportion of their time to cancer	2019	yes
# of radiation oncologist ^a	2019	13.2
# of medical physicist ^a	2019	7.8
# of surgeons ^a	2014	177.3
# of radiologist ^a	2019	108.0
# of nuclear medicine physician ^a	2019	7.5

n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	operational
MPOWER measures fully implemented and achieved	2018	1
Cancer management guidelines	2019	no
Palliative care included in their operational, integrated NCD plan	2019	no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0
Breast cancer screening program	2019	yes
Breast cancer screening program: Starting age, target population	2019	50

# Public cancer centres per 10,000 cancer patients	2019	0.4
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
Pathology services	2019	generally not available
Bone marrow transplantation capacity	2019	generally not available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	25

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

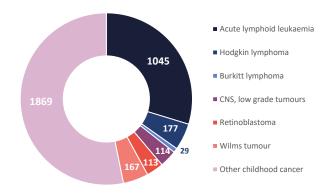
GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	0.7
Cervical cancer screening	2019	yes
Screening programme type	2019	opportunistic
Screening programme method	2019	visual inspection
Screening participation rates	2019	don't know
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Global Initiative for Childhood Cancer

of medical & pathology lab scientists^a

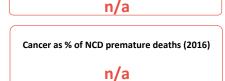
Annual cancer cases (0-14 years old)	2020	3514
Early detection programme/guidelines	2019	no
Defined referral system	2019	no

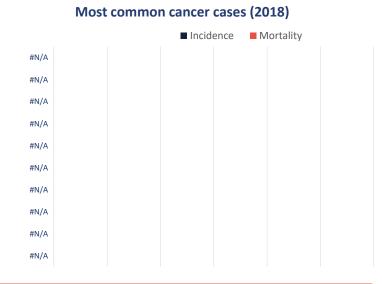




BURDEN OF CANCER

Total population (2019) 18,001 Total # cancer cases (2018) (2018) (2018) (2018) n/a Premature deaths from NCDs (2016)

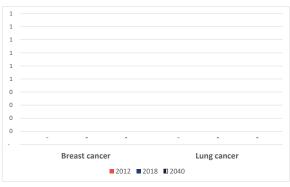




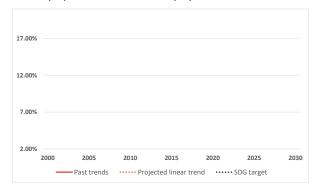


TRENDS

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



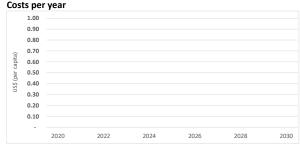
Probability of premature death from cancer per year

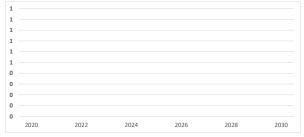


INVESTMENT CASE (2019)

*High income

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





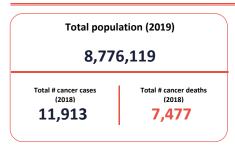


HEALTH SYSTEM CAPACITY

per 10,000 cancer patients Availability of population-based cancer			WORKFORCE		
egistry (PBCR)**	2019	No information	° per 10,000 cancer patients		
tuality 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	,	# 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/
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	1998	n/
ORMULATING RESPONSE					
tegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	n/a
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 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 availabl
of treatment services (surgery, adiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	35
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		
PV vaccination programme coverage	2018	47.5	Annual cancer cases (0-14 years old)	2020	n/a
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ne
creening programme type	2019	organised	Defined referral system	2019	ne
creening programme method	2019	PAP smear	Annual annual annual (0.44 constant)		
creening participation rates	2019	>50% and <70%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes		■ Acute I	ymphoid leukaemia
efined referral system	2019	yes			n lymphoma
				■ Burkitt	lymphoma
				CNS, lo	w grade tumours
				■ Retinol	blastoma
				■ Wilms	tumour
				■ Other o	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

BURDEN OF CANCER

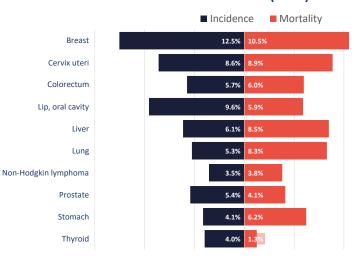


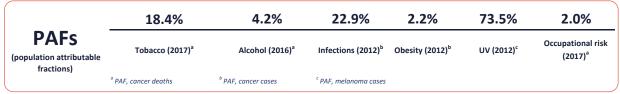
Premature deaths from NCDs (2016) 17,585

Cancer as % of NCD premature deaths (2016)

27.6%

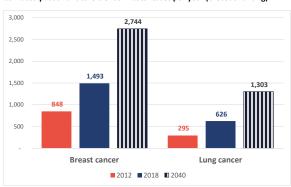
Most common cancer cases (2018)



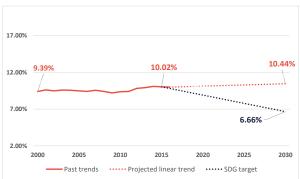


TRENDS

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

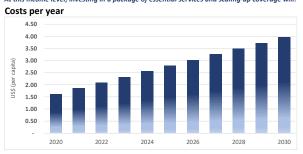


Probability of premature death from cancer per year

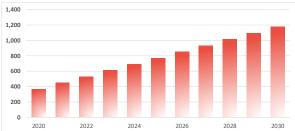


INVESTMENT CASE (2019)

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







■ Wilms tumour

Other childhood cancer

PAPUA NEW GUINEA

vailability of population-based cancer	2019	Registration activity	WORKFORCE		
egistry (PBCR)**	2013	negistration activity	^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	yes
of external beam radiotherapy photon,electron) ^a	2019	0.8	# of radiation oncologist ^a # of medical physicist ^a	2019 2019	n/a n/a
of mammographs ^a	2020	2.5	# of surgeons ^a	2014	30.2
of CT scanners ^a	2020	2.5	# of radiologist ^a	2019	n/a
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	n/a	n/a
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.8
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
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no
of treatment services (surgery, adiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	46
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	n/a	Annual cancer cases (0-14 years old)	2020	347
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	Annual cancer cases (0.14 years old)		
creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no		■ Acute	ymphoid leukaemia
Defined referral system	2019	no		■ Hodgki	n lymphoma
			126		lymphoma
			165		•
				■ CNS, lo	w 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

POLAND

BURDEN OF CANCER

Total population (2019)

37,887,771

Total # cancer cases (2018)
185,630

Total # cancer deaths (2018)
113,388

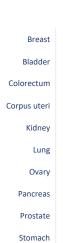
Premature deaths from NCDs (2016)

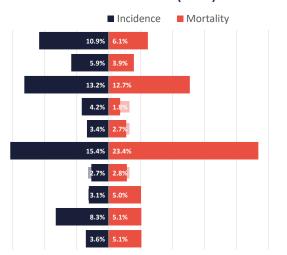
121,112

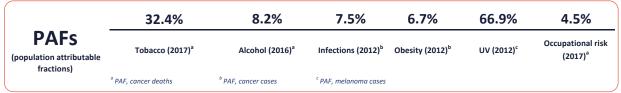
Cancer as % of NCD premature deaths (2016)

43.1%

Most common cancer cases (2018)

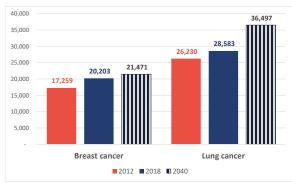




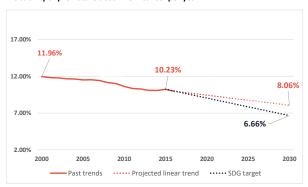


TRENDS

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



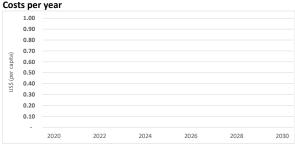
Probability of premature death from cancer per year

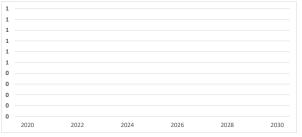


INVESTMENT CASE (2019)

*High income

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





yes 24.9 11.3 320.7 136.1 10.0 n/a

POLAND

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	Medium	dedicates significant proportion of their	2019	
			time to cancer		
of external beam radiotherapy hoton, electron) ^a 2019	2010	0.0	# of radiation oncologist ^a	2019	
	8.0	# of medical physicist ^a	2019		
# of mammographs ^a	2020	28.5	# of surgeons ^a	2014	3
# of CT scanners ^a	2020	43.5	# of radiologist ^a	2019	1
# of MRI scanners ^a	2020	24.8	# 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

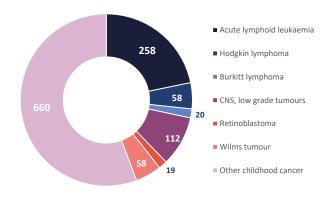
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.2
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	don't know
Cancer management guidelines	2019	don't know	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	1820
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
n/a	2018	HPV vaccination programme coverage
yes	2019	Cervical cancer screening
opportunistic	2019	Screening programme type
PAP smear	2019	Screening programme method
10%-50%	2019	Screening participation rates
don't know	2019	Early detection programme/guidelines
don't know	2019	Defined referral system

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1185
Early detection programme/guidelines	2019	don't know
Defined referral system	2019	don't know



DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

BURDEN OF CANCER



Total # cancer cases (2018) **55,476**

Total # cancer deaths (2018) 35,997

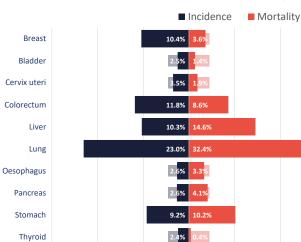
Premature deaths from NCDs (2016)

71,901

Cancer as % of NCD premature deaths (2016)

34.3%

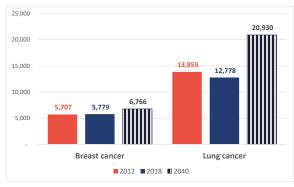
Most common cancer cases (2018)



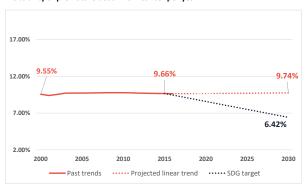
	n/a	3.6%	18.0%	1.1%	0.0%	1.9%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
nactions	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			,

TRENDS

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

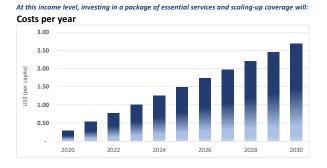


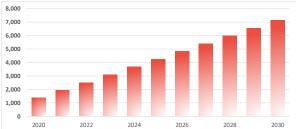
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







■ Wilms tumour

Other childhood cancer

DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA

er 10,000 cancer patients vailability of population-based cancer	2010	Registration activity	WORKFORCE		
egistry (PBCR)**	2019	Registration activity	^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	yes
of external beam radiotherapy hoton,electron) ^a	2019	0.5	# of radiation oncologist ^a # of medical physicist ^a	2019 2019	n/a n/a
of mammographs ^a	2020	n/a	# of surgeons ^a	n/a	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	n/a	n/a
ORMULATING RESPONSE					
tegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	4.5
CCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s
POWER measures fully implemented and chieved	2018	0	Pathology services	2019	generally available
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no
Illiative care included in their operational, tegrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
of treatment services (surgery, diotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	18
reast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per i	miliion inhabitants	per day
east cancer screening program: Starting e, target population	2019	35			
GLOBAL INITIATIVES					
imination of Cervical Cancer			Global Initiative for Childhood Cancer		
PV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	711
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
reening programme type	2019	organised	Defined referral system	2019	
reening programme method	2019	visual inspection	A		
reening participation rates	2019	70% or more	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes		■ Acute	lymphoid leukaemia
efined referral system	2019	yes	158	■ Hodgk	in lymphoma
				- Double	t lymphoma
				4 Burkit	
			27		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

PORTUGAL

BURDEN OF CANCER

Total population (2019)

10,226,178

Total # cancer cases (2018) **58,199**

Total # cancer deaths (2018)
28,960

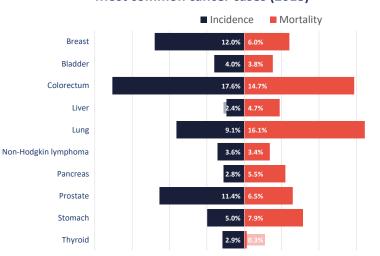
Premature deaths from NCDs (2016)

19,136

Cancer as % of NCD premature deaths (2016)

53.8%

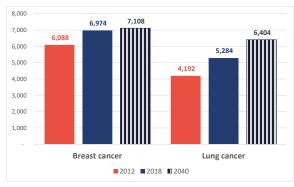
Most common cancer cases (2018)



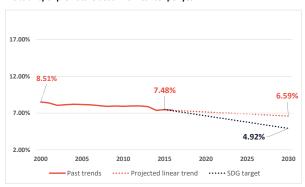


TRENDS

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



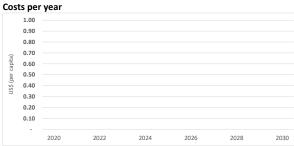
Probability of premature death from cancer per year

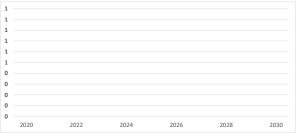


INVESTMENT CASE (2019)

*High income

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





PORTUGAL

HEALTH SYSTEM CAPACITY

2019	High quality PBCR	WORKFORCE		
		^o per 10,000 cancer patients Available staff in Ministry of Health who		
2007-2016	Medium	dedicates significant proportion of their time to cancer	2019	yes
2010	0.5	# of radiation oncologist ^a	2019	14.9
2019	9.5	# of medical physicist ^a	2019	22.7
2020	64.6	# of surgeons ^a	2013	989.4
2020	66.7	# of radiologist ^a	2019	212.0
2020	31.8	# of nuclear medicine physician ^a	2019	13.7
2020	1.2	# of medical & pathology lab scientists ^a	n/a	n/a
	2007-2016 2019 2020 2020 2020	2007-2016 Medium 2019 9.5 2020 64.6 2020 66.7 2020 31.8	2007-2016 Medium dedicates significant proportion of their time to cancer 2019 9.5 # of radiation oncologist ^a 2020 64.6 # of surgeons ^a 2020 66.7 # of radiologist ^a 2020 31.8 # of nuclear medicine physician ^a	2007-2016 Medium dedicates significant proportion of their 2019 time to cancer 2019 9.5 # of radiation oncologist ^a 2019 2020 64.6 # of surgeons ^a 2013 2020 66.7 # of radiologist ^a 2019 2020 31.8 # of nuclear medicine physician ^a 2019

FORMULATING RESPONSE

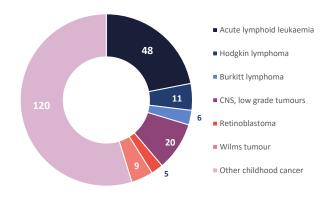
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.7
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	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	3987
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	niliion 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	80.1
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	PAP smear
Screening participation rates	2019	70% or more
Early detection programme/guidelines	2019	yes
Defined referral system	2019	no

Global Initiative for Childhood Cancer

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



■ Mortality

PARAGUAY

BURDEN OF CANCER

Total population (2019)

7,044,639

Total # cancer cases (2018) 11,244

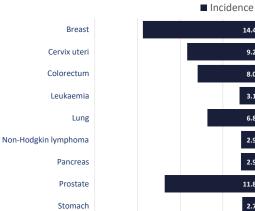
Total # cancer deaths (2018) 5,635

Premature deaths from NCDs (2016) 10,891

Cancer as % of NCD premature deaths (2016)

26.3%

Most common cancer cases (2018)





14.4%

8.0%

3.1%

6.8%

2.9%

2.9%

PAFs (population attributable fractions)

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

21.7%

Infections (2012)^b

^c PAF, melanoma cases

Thyroid

5.1%

^b PAF, cancer cases

Obesity (2012)^b

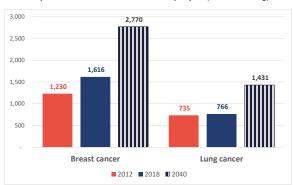
UV (2012)c

(2017)^a

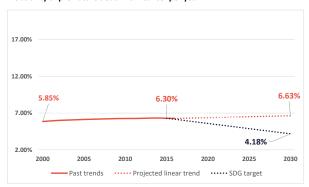
TRENDS

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

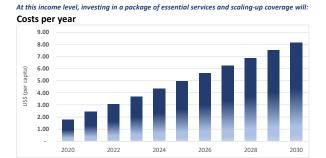
^a PAF, cancer deaths



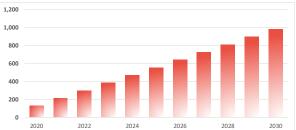
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







Other childhood cancer

PARAGUAY

Availability of population-based cancer	2019	Registration activity	WORKFORCE		
egistry (PBCR)** 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	2019	no
of external beam radiotherapy			time to cancer # of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	4.4	# of medical physicist ^a	2019	4.
of mammographs ^a	2020	16.0	# of surgeons ^a	2014	316.
of CT scanners ^a	2020	8.9	# of radiologist ^a	2019	44.
of MRI scanners ^a	2020	1.8	# of nuclear medicine physician ^a	2019	4.
of PET or PET/CT scanners ^a	2020	2.7	# of medical & pathology lab scientists ^a	2012	1240.
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.7
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 availab
ancer management guidelines	2019	don't know	Bone marrow transplantation capacity	2019	generally no availab
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	
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	56.3	Annual cancer cases (0-14 years old)	2020	27
ervical cancer screening	2019	yes	Early detection programme/guidelines	2019	don't know
creening programme type	2019	opportunistic	Defined referral system	2019	don't know
creening programme method	2019	PAP smear			
creening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	no			
efined referral system	2019	20			ymphoid leukaemia
enneu reierrai system	2019	no	73	_	n lymphoma
				Burkitt	lymphoma
			148	CNS, lo	w grade tumours
			5	■ Retino	blastoma
			19	Wilms	

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



BURDEN OF CANCER

Total population (2019)

2,832,071

Total # cancer cases (2018)

1,260

Total # cancer deaths (2018)

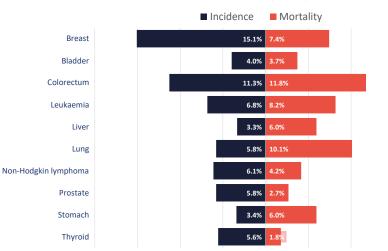
672

Premature deaths from NCDs (2016) 1,689

Cancer as % of NCD premature deaths (2016)

27.1%

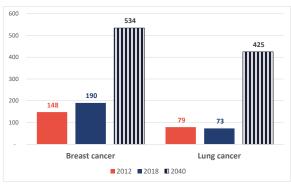
Most common cancer cases (2018)



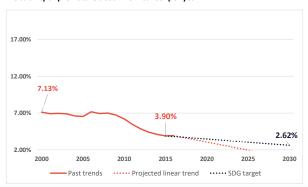


TRENDS

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



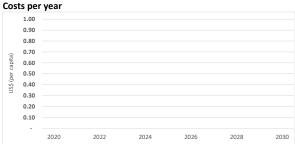
Probability of premature death from cancer per year

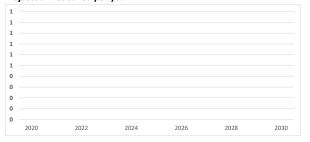


INVESTMENT CASE (2019)

*High income

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







^o 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	Low	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	уе
of external beam radiotherapy	2010	22.0	# of radiation oncologist ^a	2019	n/
photon,electron) ^a	2019	23.8	# of medical physicist ^a	2019	158.
of mammographs ^a	2020	111.1	# of surgeons ^a	2011	531.
# of CT scanners ^a	2020	246.0	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	309.5	# of nuclear medicine physician ^a	2019	39.
# of PET or PET/CT scanners ^a	2020	15.9	# of medical & pathology lab scientists ^a	2006	4000.
FORMULATING RESPONSE					
ntegrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	7.9
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	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	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	19
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	45			
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	5
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	n
Screening programme type	2019	organised	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		■ Acute l	ymphoid leukaemia
Defined referral system	2019	yes	11		n lymphoma
•		•			lymphoma
			4		w grade tumours
			32		olastoma
			3	■ Wilms	
			3	■ Other o	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

ROMANIA

BURDEN OF CANCER

Total population (2019)

19,364,558

Total # cancer cases (2018) 83,461

Total # cancer deaths (2018) 50,902

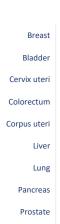
Premature deaths from NCDs (2016)

73,039

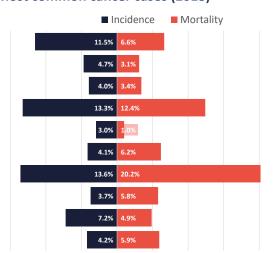
Cancer as % of NCD premature deaths (2016)

37.4%

Most common cancer cases (2018)



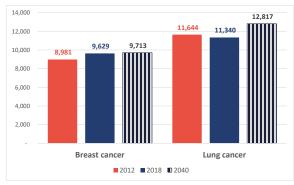
Stomach



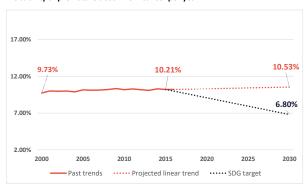


TRENDS

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



Probability of premature death from cancer per year

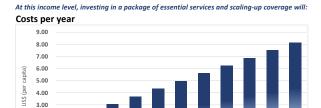


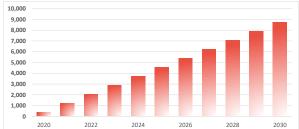
INVESTMENT CASE (2019)

3.00

2.00

1.00





ROMANIA

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 time to cancer	2019	n/a	
# of external beam radiotherapy	2242		# of radiation oncologist ^a	2019	n/a	
(photon,electron) ^a	2019	6.4	# of medical physicist ^a	2019	3.5	
# of mammographs ^a	2020	28.4	# of surgeons ^a	2013	1097.2	
# of CT scanners ^a	2020	41.1	# of radiologist ^a	2019	206.3	
# of MRI scanners ^a	2020	21.7	# of nuclear medicine physician ^a	2019	7.2	
# of PET or PET/CT scanners ^a	2020	1.4	# of medical & pathology lab scientists a	2011	n/a	

FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)
MPOWER measures fully implemented and achieved	2018	2	Pathology services
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity
Palliative care included in their operational, integrated NCD plan	2019	yes	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-DDD) per m
Breast cancer screening program: Starting age, target population	2019	50	

2019 generally available generally not 2019 available generally not 2019 available 2015-2017 918

2019

2019

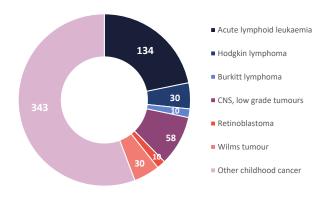
3 cancer(s)

GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	615
Early detection programme/guidelines	2019	no
Defined referral system	2019	don't know



DD) per miliion inhabitants per day

RUSSIAN FEDERATION

BURDEN OF CANCER



145,872,260

Total # cancer cases (2018)
543,045

Total # cancer deaths (2018)
314,611

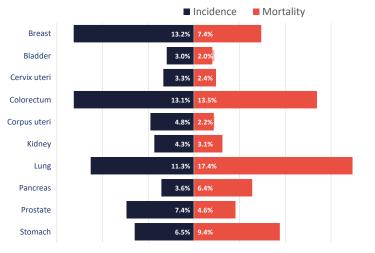
Premature deaths from NCDs (2016)

615,954

Cancer as % of NCD premature deaths (2016)

33.3%

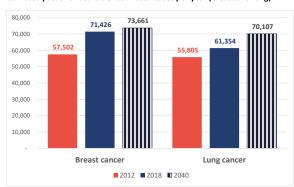
Most common cancer cases (2018)



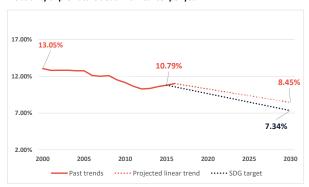


TRENDS

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

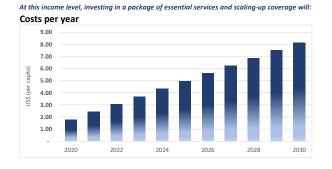


Probability of premature death from cancer per year

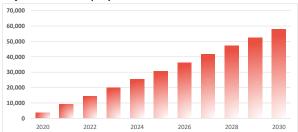


INVESTMENT CASE (2019)

*Upper middle income







2019

4 cancer(s)

don't know

198

generally available

generally available

RUSSIAN FEDERATION

HEALTH SYSTEM CAPACITY

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	Medium	dedicates significant proportion of their time to cancer	2019	yes
of external beam radiotherapy	2010	0.4	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	8.1	# of medical physicist ^a	2019	11.0
of mammographs ^a	2020	50.6	# of surgeons ^a	2014	439.0
of CT scanners ^a	2020	45.0	# of radiologist ^a	2019	455.7
of MRI scanners ^a	2020	19.9	# of nuclear medicine physician a	2019	n/a
of PET or PET/CT scanners ^a	2020	0.5	# of medical & pathology lab scientists ^a	n/a	n/a

FORMULATING RESPONSE

Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer 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	3	Pathology services	2019
Cancer management guidelines	2019	yes	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	2015-2017
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per r	miliion inhabitants
Breast cancer screening program: Starting age, target population	2019	40		

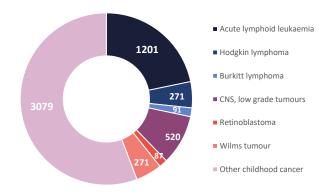
on inhabitants per day

GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	5520
Early detection programme/guidelines	2019	yes
Defined referral system	2019	ves



RWANDA

BURDEN OF CANCER

Total population (2019)

12,626,938

Total # cancer cases (2018)
10,704

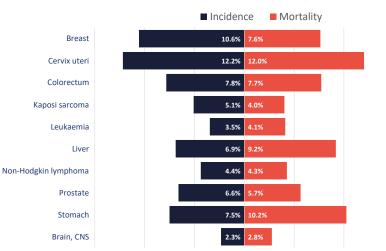
Total # cancer deaths (2018)
7,662

Premature deaths from NCDs (2016) 13,489

Cancer as % of NCD premature deaths (2016)

41.6%

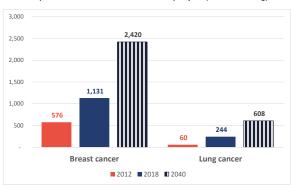
Most common cancer cases (2018)



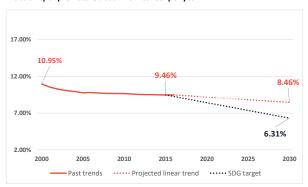
	12.1%	10.0%	35.8%	0.4%	67.4%	0.7%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
,	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

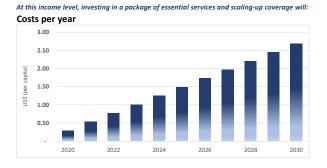


Probability of premature death from cancer per year

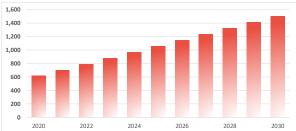


INVESTMENT CASE (2019)

*Low income







RWANDA

per 10,000 cancer patients Availability of population-based cancer	2010	DDCD	WORKFORCE		
registry (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	ye
of external beam radiotherapy	2019	1.9	# of radiation oncologist ^a	2019	n/
photon,electron) ^a	2013	1.3	# of medical physicist ^a	2019	n/
of mammographs ^a	2020	8.4	# of surgeons ^a	2014	39.
of CT scanners ^a	2020	10.3	# of radiologist ^a	2019	n/
of MRI scanners ^a	2020	0.9	# of nuclear medicine physician ^a	2019	0.
of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2015	n/
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	2.8
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	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, tegrated 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	1
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	84.1	Annual cancer cases (0-14 years old)	2020	68
ervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
creening programme type	2019	n/a	Defined referral system	2019	
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			
			87	■ Acute lym	iphoid leukaemia
efined referral system	2019	yes	29	■ Hodgkin I	ymphoma
			38	■ Burkitt ly	mphoma
			20	■ CNS, low	grade tumours
			439	■ Retinobla	stoma
			40	■ Wilms tur	nour
				- 011	
				Other chi	dhood cancer

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

SAUDI ARABIA

BURDEN OF CANCER

Total population (2019)

34,268,529

Total # cancer cases (2018) **24,485**

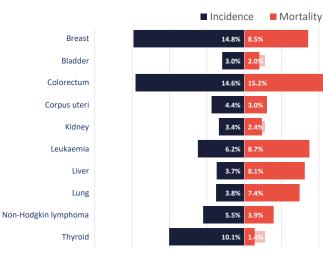
Total # cancer deaths (2018) 10,518

Premature deaths from NCDs (2016) 36,951

Cancer as % of NCD premature deaths (2016)

19.1%

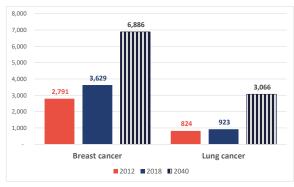
Most common cancer cases (2018)



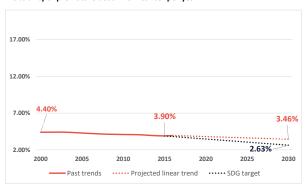
	10.0%	0.4%	12.0%	6.8%	0.0%	1.0%
PAFS (population attributable fractions)	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012)°	Occupational risk (2017) ^a
indections)	^a PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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



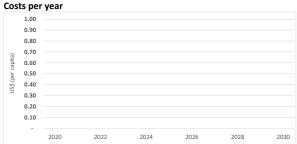
Probability of premature death from cancer per year

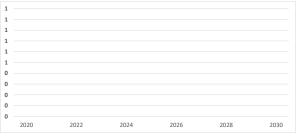


INVESTMENT CASE (2019)

*High income

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





Other childhood cancer

SAUDI ARABIA

Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
egistry (PBCR)**	2015	riigii quality i bek	° per 10,000 cancer patients Available staff in Ministry of Health who		
uality of mortality registration***	2007-2016	Very low	dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2019	13.1	# of radiation oncologist ^a	2019	24.
photon,electron) ^a			# of medical physicist ^a	2019	102.
of mammographs ^a	2020	81.7	# of surgeons ^a	n/a	n/a
of CT scanners ^a	2020	251.6	# of radiologist ^a	2019	1114.
of MRI scanners ^a	2020	158.5	# of nuclear medicine physician ^a	2019	32.
of PET or PET/CT scanners ^a	2020	11.0	# of medical & pathology lab scientists ^a	n/a	n/s
ORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	4.1
ICCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s
1POWER measures fully implemented and chieved	2018	3	Pathology services	2019	generally availabl
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	30
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	129
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		Annual cancer cases (0-14 years old)		
		n/a			
arly detection programme/guidelines	2019	no		■ Acute	ymphoid leukaemia
refined referral system	2019	no	256	■ Hodgki	n lymphoma
			97	■ Burkitt	lymphoma
			715	CNS, lo	w grade tumours
			37	■ Retino	blastoma
			64	■ Wilms	tumour
			68	= Othor	برموسوم الموادات

^{***}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



42,813,237

Total # cancer cases (2018) **25,746**

Total # cancer deaths (2018)

17,160

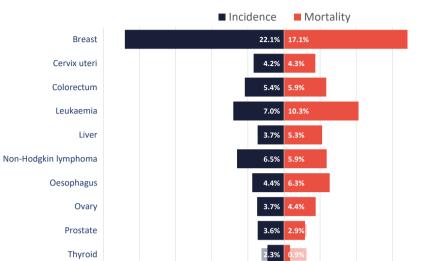
Premature deaths from NCDs (2016)

68,650

Cancer as % of NCD premature deaths (2016)

16.3%

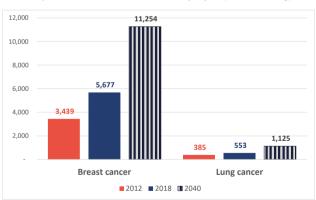
Most common cancer cases (2018)



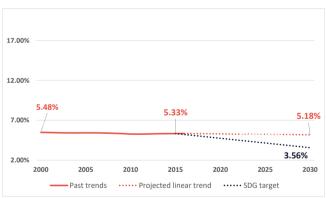


TRENDS

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



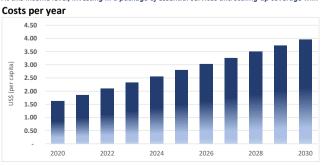
Probability of premature death from cancer per year

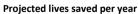


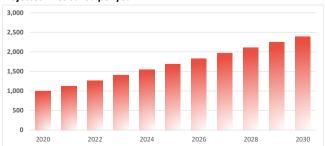
INVESTMENT CASE (2019)

*Lower middle income

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







■ Wilms tumour

Other childhood cancer

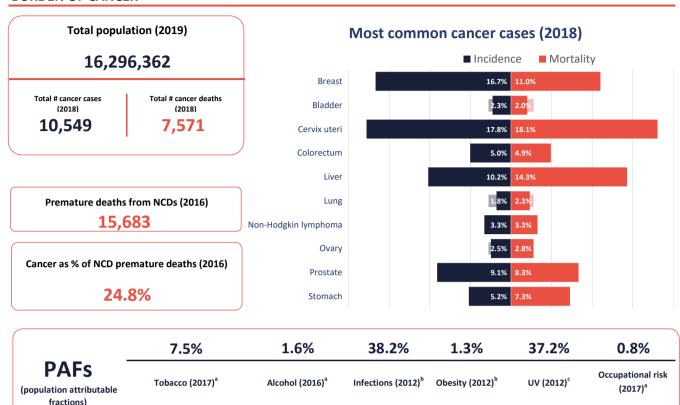
SUDAN

a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	PBCR	WORKFORCE 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	2019	yes
	2007 2010	no coverage	time to cancer		
# of external beam radiotherapy (photon,electron) ^a	2019	3.1	# of radiation oncologist ^a # of medical physicist ^a	2019 2019	n/a 10.9
# of mammographs ^a	2020	7.8	# of surgeons ^a	2014	116.5
# of CT scanners ^a	2020	17.9	# of radiologist ^a	2019	n/a
# of MRI scanners ^a	2020	5.0	# of nuclear medicine physician ^a	2019	1.2
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2004	13.6
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.8
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally not available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	don't know
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	7
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per r	miliion inhabitants pei	r 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	3421
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	no
	2010	n/a	Defined referral system	2019	no
Screening programme type	2019	11/4	Defined referral system		
	2019	n/a	Defined reterral system		
Screening programme method		n/a	Annual cancer cases (0-14 years old)		
Screening programme method Screening participation rates	2019	n/a	,		
Screening programme method Screening participation rates	2019 2019	n/a	Annual cancer cases (0-14 years old)	■ Acute lyr	mphoid leukaemia
Screening programme method Screening participation rates Early detection programme/guidelines	2019 2019	n/a	Annual cancer cases (0-14 years old)		nphoid leukaemia Iymphoma
Screening programme type Screening programme method Screening participation rates Early detection programme/guidelines Defined referral system	2019 2019 2019	n/a n/a yes	Annual cancer cases (0-14 years old) 494 130 39		lymphoma
Screening programme method Screening participation rates Early detection programme/guidelines	2019 2019 2019	n/a n/a yes	Annual cancer cases (0-14 years old)	■ Hodgkin	lymphoma

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

SENEGAL

BURDEN OF CANCER

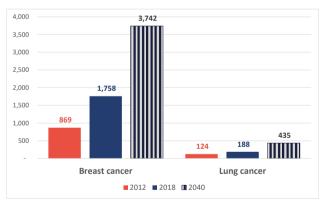


^b PAF, cancer cases

TRENDS

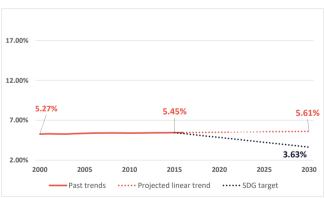
Estimated past and future trends in total cases per year (breast and lung)

^a PAF, cancer deaths



Probability of premature death from cancer per year

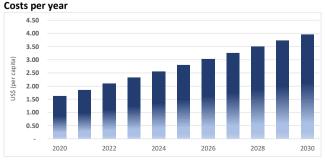
^c PAF, melanoma cases

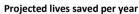


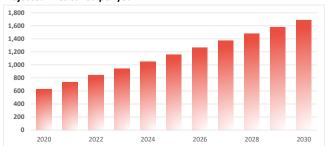
INVESTMENT CASE (2019)



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







■ Retinoblastoma ■ Wilms tumour

Other childhood cancer

SENEGAL

per 10,000 cancer patients Availability of population-based cancer	2019	No information	WORKFORCE		
registry (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	yes
# of external beam radiotherapy	2019	2.8	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	2.0	# of medical physicist ^a	2019	1.9
# of mammographs ^a	2020	23.7	# of surgeons ^a	2011	36.0
of CT scanners ^a	2020	28.4	# of radiologist ^a	2019	47.4
of MRI scanners ^a	2020	1.9	# of nuclear medicine physician ^a	2019	2.8
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2016	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	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	3	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	22
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	20			
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	942
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	opportunistic	Defined referral system	2019	no
Screening programme method	2019	visual inspection	A		
Screening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
			105	■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	50	■ Hodgk	in lymphoma
			65	■ Burkit	t lymphoma
			30		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

SINGAPORE

BURDEN OF CANCER



5,804,343

Total # cancer cases (2018) **26,164**

Total # cancer deaths (2018)
13,093

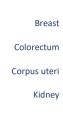
Premature deaths from NCDs (2016)

7,899

Cancer as % of NCD premature deaths (2016)

48.7%

Most common cancer cases (2018)

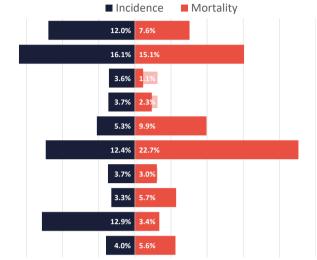


Liver Lung

Non-Hodgkin lymphoma

Pancreas Prostate

Stomach



PAFs

(population attributable fractions)

Tobacco (2017)^a

20.7%

7 (2017) Alcoho

Alcohol (2016)^a

^b PAF, cancer cases

4.2%

1300.0% Infections (2012)^b 3.4% Obesity (2012)^b

UV (2012)°

1.9%

Occupational risk (2017)^a

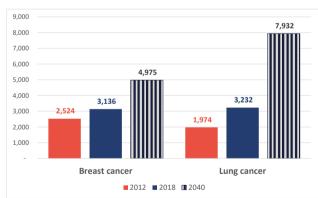
4.2%

^c PAF, melanoma cases

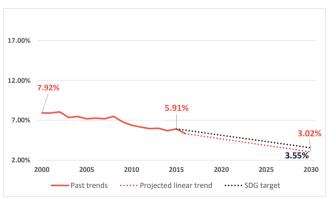
TRENDS

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

^a PAF, cancer deaths



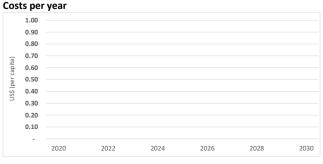
Probability of premature death from cancer per year

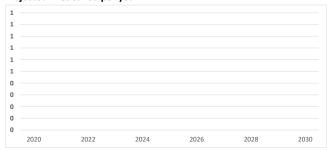


INVESTMENT CASE (2019)

*High income

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





SINGAPORE

HEALTH SYSTEM CAPACITY

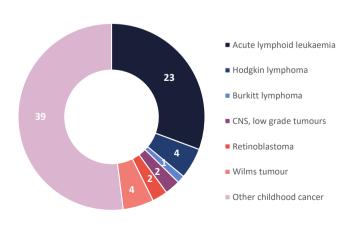
^a per 10,000 cancer patients

Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**	2019	ingii quanty rock	^o per 10,000 concer 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	2019	8.8	# of radiation oncologist ^a	2019	15.7
(photon,electron) ^a	2019	8.8	# of medical physicist ^a	2019	16.1
# of mammographs ^a	2020	32.5	# of surgeons ^a	2013	389.5
# of CT scanners ^a	2020	19.1	# of radiologist ^a	2019	115.4
# of MRI scanners ^a	2020	16.8	# of nuclear medicine physician ^a	2019	11.5
# of PET or PET/CT scanners ^a	2020	5.4	# 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	0.8
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	no	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	571
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		
HPV vaccination programme coverage	2018	0.1
Cervical cancer screening	2019	yes
Screening programme type	2019	organised
Screening programme method	2019	HPV test
Screening participation rates	2019	>50% and <70%
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)	2020	75
Early detection programme/guidelines	2019	yes
Defined referral system	2019	yes

Annual cancer cases (0-14 years old)



SOLOMON ISLANDS

BURDEN OF CANCER



669,821

Total # cancer cases (2018)

Total # cancer deaths (2018)
331

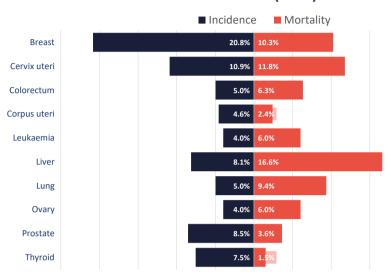
Premature deaths from NCDs (2016)

848

Cancer as % of NCD premature deaths (2016)

28.5%

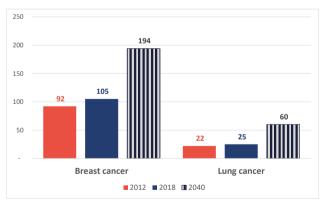
Most common cancer cases (2018)



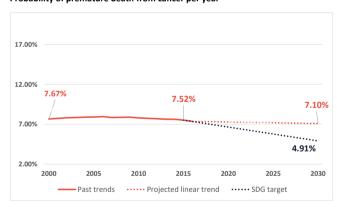


TRENDS

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



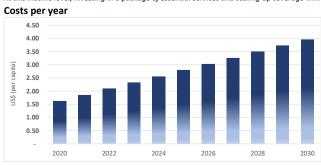
Probability of premature death from cancer per year

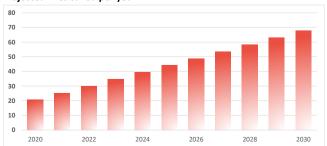


INVESTMENT CASE (2019)

*Lower middle income

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





SOLOMON ISLANDS

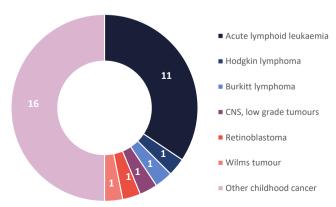
HEALTH SYSTEM CAPACITY

Screening participation rates

Defined referral system

Early detection programme/guidelines

^a 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	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2012		# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	n/a
# of mammographs ^a	2020	0.0	# of surgeons ^a	2011	99.2
# of CT scanners ^a	2020	19.8	# of radiologist ^a	2019	n/a
# 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	2013	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	-
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally not available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	18
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per I	miliion inhabitants per	r 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	32
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	opportunistic	Defined referral system	2019	no
Screening programme method	2019	visual inspection			
Constitution of the contract o	2040		Annual cancer cases (0-14 years old)		



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

2019

2019

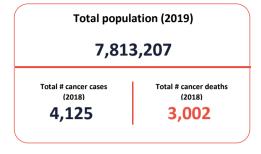
2019

10%-50%

no

SIERRA LEONE

BURDEN OF CANCER



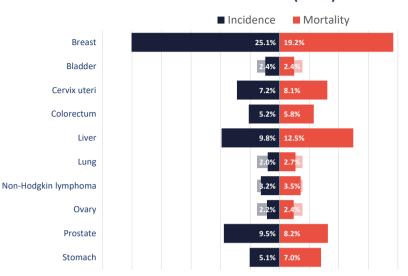
Premature deaths from NCDs (2016)

15,308

Cancer as % of NCD premature deaths (2016)

12.0%

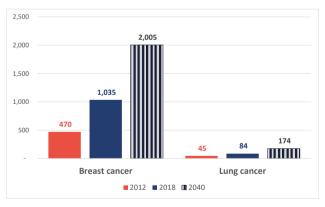
Most common cancer cases (2018)



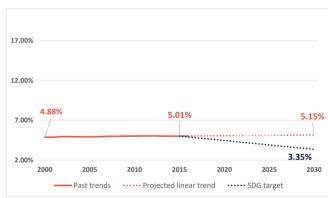


TRENDS

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

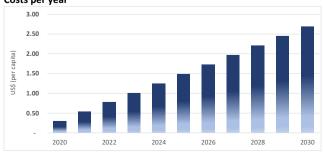


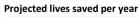
Probability of premature death from cancer per year

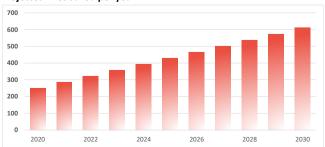


INVESTMENT CASE (2019)









■ Retinoblastoma ■ Wilms tumour

Other childhood cancer

SIERRA LEONE

° per 10,000 cancer patients Availability of population-based cancer	2019	Registration activity	WORKFORCE		
registry (PBCR)** Quality of mortality registration***	2007-2016	No coverage	^o per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their	2019	no
Quanty of moreanty region and	2007 2010	no coverage	time to cancer		
# of external beam radiotherapy (photon,electron) ^a	2019	0.0	# of radiation oncologist ^a # of medical physicist ^a	2019 2019	n/a n/a
# of mammographs ^a	2020	7.3	# of surgeons ^a	2013	12.1
# of CT scanners ^a	2020	7.3		2012	9.7
# of MRI scanners	2020	2.4	# of radiologist ^a # of nuclear medicine physician ^a	2019	0.0
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2011	443.6
FORMULATING RESPONSE					
Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	-
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally not available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per	miliion inhabitants pei	r 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	424
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	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
Defined referral system	2019	no	47	■ Acute lyr	mphoid leukaemia
-			22	■ Hodgkin	lymphoma
			30	■ Burkitt ly	mphoma
			258	■ CNS, low	grade tumours
			230		

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

EL SALVADOR

BURDEN OF CANCER

Total population (2019)

6,453,550

Total # cancer cases (2018)
10,326

Total # cancer deaths (2018)
6,222

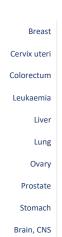
Premature deaths from NCDs (2016)

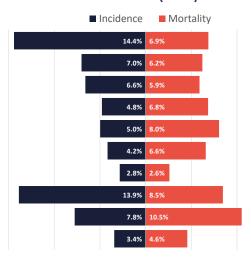
11,472

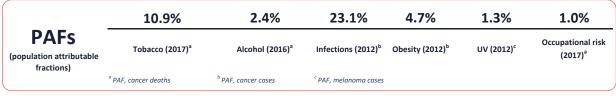
Cancer as % of NCD premature deaths (2016)

24.4%

Most common cancer cases (2018)

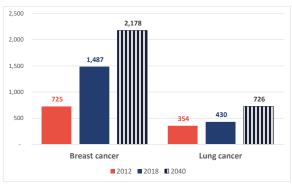




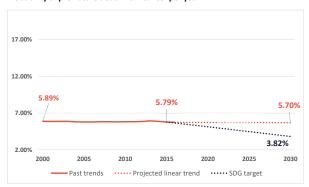


TRENDS

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

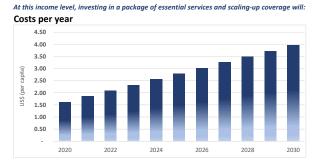


Probability of premature death from cancer per year

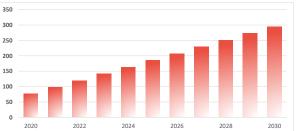


INVESTMENT CASE (2019)

*Lower middle income







■ Wilms tumour

Other childhood cancer

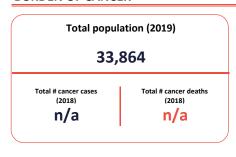
EL SALVADOR

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	уе
f of external beam radiotherapy			time to cancer # of radiation oncologist ^a	2019	n/
photon,electron) ^a	2019	8.7	# of medical physicist ^a	2019	10.
f of mammographs ^a	2020	29.1	# of surgeons ^a	2009	1183.
of CT scanners ^a	2020	29.1	# of radiologist ^a	2019	62.
# of MRI scanners ^a	2020	6.8	# 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,
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	3.9
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 availab
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally n
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally no
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	18
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	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	25
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			
Screening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
				■ Acute	lymphoid leukaemi
Defined referral system	2019	yes	71	■ Hodgl	kin lymphoma
				■ Burkit	t lymphoma
			138	■ CNS, I	ow grade tumours
			6		oblastoma
			18	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

SAN MARINO

BURDEN OF CANCER









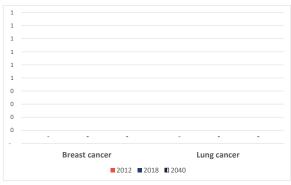
Most common cancer cases (2018)



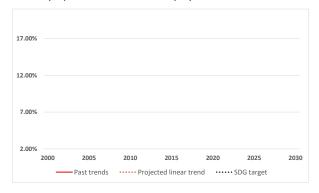


TRENDS

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



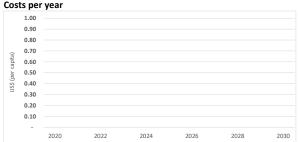
Probability of premature death from cancer per year

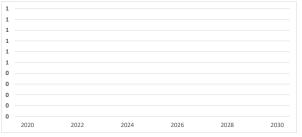


INVESTMENT CASE (2019)

*High income

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





SAN MARINO

L	HEAL	ТШ	CV	CTE	N/1 /	$\Gamma \Lambda$	DΛ	CITV	1
г	7CAL		ЭΙ.	3 I E	VI 1	LA	РΑ	CIII	

° per 10,000 cancer patients Availability of population-based cancer	2019	No data	WORKFORCE		
egistry (PBCR)** Quality of mortality registration***	2007-2016	No data	^o per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their	2019	ye
of external beam radiotherapy			time to cancer # 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/
of MRI scanners ^a	2020	n/a	# of nuclear medicine physician ^a	2019	n/
f 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	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	3 cancer(s
MPOWER measures fully implemented and inchieved	2018	0	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	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	n/
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	35			
GLOBAL INITIATIVES					
limination of Cervical Cancer			Global Initiative for Childhood Cancer		
IPV vaccination programme coverage	2018	16	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	HPV test			
creening participation rates	2019	700/	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	70% or more yes			
arry detection programme/guidennes	2013	усэ		■ Acute l	ymphoid leukaemia
efined referral system	2019	yes		■ Hodgki	in lymphoma
				■ Burkitt	lymphoma
				■ CNS, lo	w grade tumours
				■ Retino	blastoma
				■ Wilms	tumour
				■ Other	childhood cancer
				- 001161	cimanoou tantei

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

SOMALIA

BURDEN OF CANCER



15,442,906

Total # cancer cases (2018)

9,942

Total # cancer deaths (2018) **8,198**

Premature deaths from NCDs (2016) 18,169

Cancer as % of NCD premature deaths (2016)

22.8%

Most common cancer cases (2018)



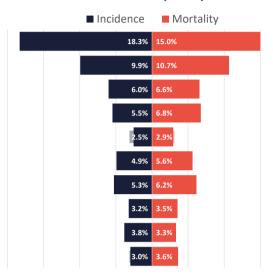
Liver

Non-Hodgkin lymphoma

Oesophagus

Ovary

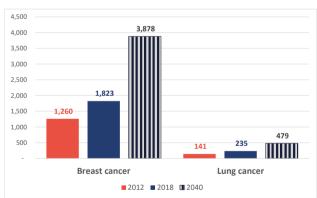
Prostate Stomach



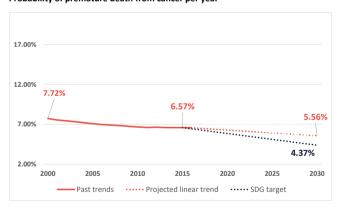
7.3% 0.8% 23.7% 1.2% 6.3% 0.7% **PAFs** Occupational risk Obesity (2012)^b UV (2012)° Tobacco (2017)^a Alcohol (2016)^a Infections (2012)^b (population attributable (2017)^a fractions) ^a PAF, cancer deaths ^b PAF, cancer cases ^c PAF, melanoma cases

TRENDS

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



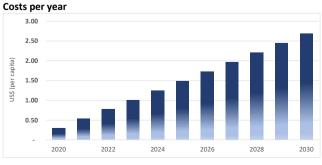
Probability of premature death from cancer per year

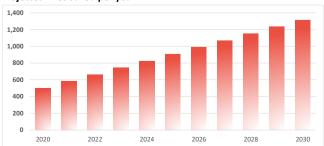


INVESTMENT CASE (2019)



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





■ Wilms tumour

Other childhood cancer

SOMALIA

° per 10,000 cancer patients Availability of population-based cancer	2019	No information	WORKFORCE		
registry (PBCR)**	2019	No information	^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	no
# 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	n/a
# of mammographs ^a	2020	3.0	# of surgeons ^a	2014	15.1
# of CT scanners ^a	2020	6.0	# of radiologist ^a	2019	n/a
# of MRI scanners ^a	2020	2.0	# of nuclear medicine physician ^a	2019	0.0
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2005	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per m	iliion 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	986
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	don't know	Defined referral system	2019	yes
Screening programme method	2019	PAP smear	A		
Screening participation rates	2019	don't know	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
Defined referral system	2019	yes	125	■ Acute	lymphoid leukaemia
,			42	■ Hodgk	in lymphoma
			55	Burkit	t lymphoma
			38	■ CNS, I	ow grade tumours
			628	■ 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

SERBIA

BURDEN OF CANCER



8,772,228

Total # cancer cases (2018)
47,960

Total # cancer deaths (2018)
26,919

Premature deaths from NCDs (2016)

28,147

Cancer as % of NCD premature deaths (2016)

42.4%

Most common cancer cases (2018)

Breast Bladder Cervix uteri

Colorectum

Corpus uteri

Lung

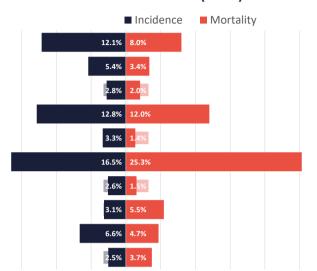
Melanoma of skin

Pancreas Prostate

Stomach

8.5%

Alcohol (2016)^a



PAFs

(population attributable fractions)

Tobacco (2017)^a

33.4%

^b PAF, cancer cases

8.9%

5.7% Obesity (2012)^b 78.3%

2.4%

UV (2012)°

Occupational risk (2017)^a

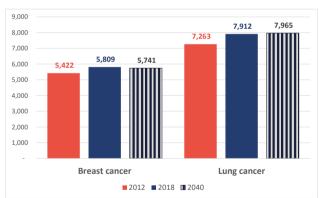
^c PAF, melanoma cases

Infections (2012)^b

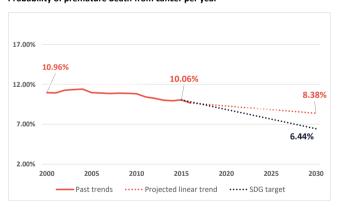
TRENDS

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

^a PAF, cancer deaths



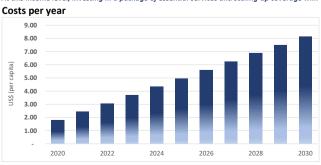
Probability of premature death from cancer per year

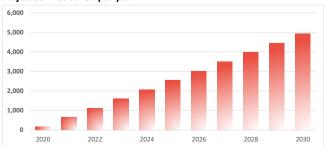


INVESTMENT CASE (2019)

*Unner middle income

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





■ CNS, low grade tumours

Other childhood cancer

RetinoblastomaWilms tumour

SERBIA

a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	PBCR	WORKFORCE		
08.00.7 (1.20.17			° 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	don't know
of external beam radiotherapy	2019	6.5	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2013	0.5	# of medical physicist ^a	2019	10.0
# of mammographs ^a	2020	26.1	# of surgeons ^a	n/a	n/a
of CT scanners ^a	2020	27.1	# of radiologist ^a	2019	n/a
# of MRI scanners ^a	2020	12.3	# of nuclear medicine physician ^a	2019	13.3
# of PET or PET/CT scanners ^a	2020	0.4	# of medical & pathology lab scientists ^a	2016	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	0.8
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	don't know
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	1490
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per I	niliion 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	222
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	organised	Defined referral system	2019	yes
Screening programme method	2019	PAP smear	Annual concess 20 14 years 1.10		
Screening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
Defined of code atom	2010			■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	49	■ Hodgk	kin lymphoma
				■ Burkit	t lymphoma

SOUTH SUDAN

BURDEN OF CANCER

Total population (2019)

11,062,114

Total # cancer cases (2018)

9,398

Total # cancer deaths (2018)
7,309

Premature deaths from NCDs (2016)

14,463

Cancer as % of NCD premature deaths (2016)

35.9%

Most common cancer cases (2018)

Breast

Cervix uteri

Colorectum

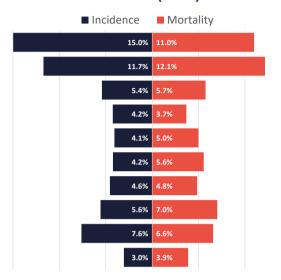
Kaposi sarcoma

Leukaemia Liver

Non-Hodgkin lymphoma

Oesophagus

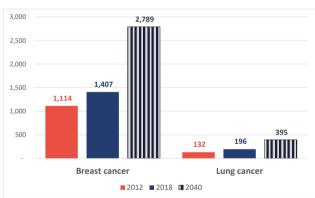
Prostate Stomach



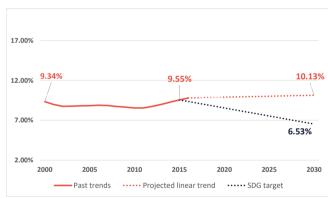
8.4% 5.4% 28.9% 1.1% 27.6% 0.6% **PAFs** Occupational risk UV (2012)° Tobacco (2017)^a Alcohol (2016)^a Infections (2012)^b Obesity (2012)^b (population attributable (2017)^a fractions) ^a PAF, cancer deaths ^b PAF, cancer cases ^c PAF, melanoma cases

TRENDS

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



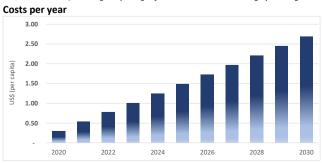
Probability of premature death from cancer per year

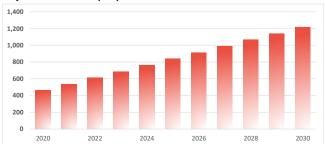


INVESTMENT CASE (2019)



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





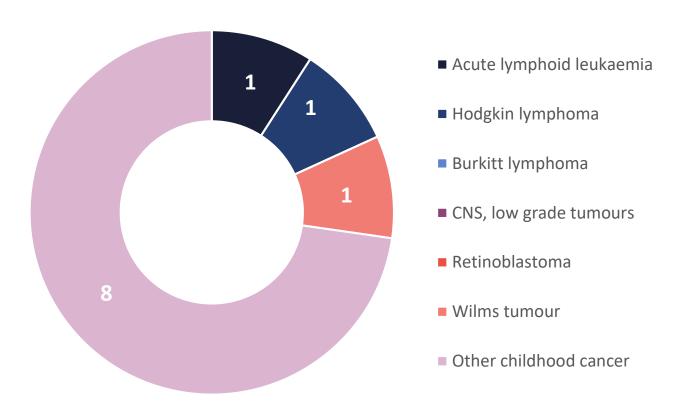
■ Wilms tumour

Other childhood cancer

SOUTH SUDAN

^a per 10,000 cancer patients Availability of population-based cancer	2019	No information	WORKFORCE		
registry (PBCR)**	2019	No information	o 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	no
# 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	n/a
# of mammographs ^a	2020	n/a	# of surgeons ^a	2013	16.0
# 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	0.0	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally not available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per m	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	622
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	no
Screening programme type	2019	n/a	Defined referral system	2019	no
Screening programme method	2019	n/a			
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
Defined referral system	2019		78	■ Acute lyr	nphoid leukaemia
Defined referral system	2019	no	26	■ Hodgkin	lymphoma
			35	■ Burkitt ly	mphoma
			18	■ CNS, low	grade tumours
			398	■ Retinobla	astoma
			43		

^{**}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



SURINAME

BURDEN OF CANCER



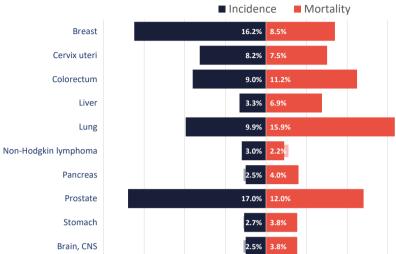
Premature deaths from NCDs (2016)

1,346

Cancer as % of NCD premature deaths (2016)

24.0%

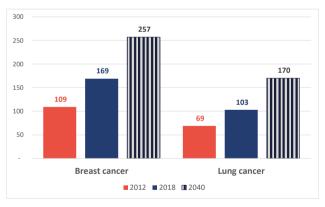




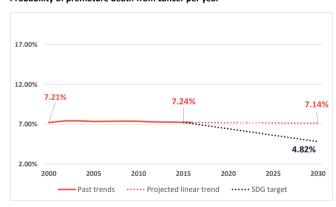


TRENDS

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



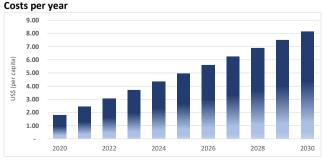
Probability of premature death from cancer per year

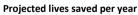


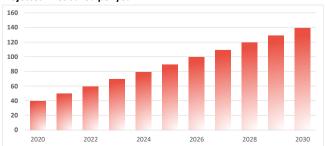
INVESTMENT CASE (2019)

*Upper middle income

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







Other childhood cancer

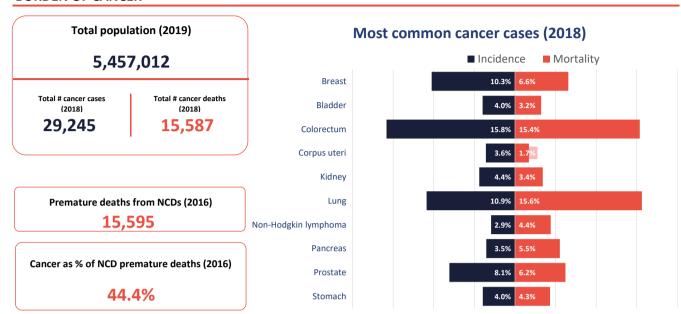
SURINAME

^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	don't know
# of external beam radiotherapy	2010	10.3	# of radiation oncologist ^a	2019	19.2
(photon,electron) ^a	2019	19.2	# of medical physicist ^a	2019	n/a
# of mammographs ^a	2020	38.4	# of surgeons ^a	n/a	n/a
# of CT scanners ^a	2020	38.4	# of radiologist ^a	2019	96.0
# of MRI scanners ^a	2020	19.2	# of nuclear medicine physician ^a	2019	9.6
# 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	9.6
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	3	Pathology services	2019	generally available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	196
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per m	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	38.1	Annual cancer cases (0-14 years old)	2020	20
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	7/0	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	n/a yes			
-any accessor programme/garacimes	2023	, co		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	5	■ Hodgl	kin lymphoma
				■ Burkit	t lymphoma
			11 1	■ CNS, I	ow grade tumours
				■ Retino	oblastoma
			1	■ Wilms	tumour

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

SLOVAKIA

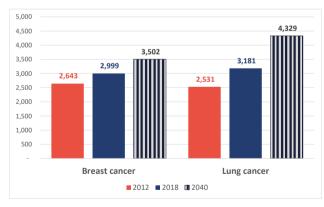
BURDEN OF CANCER



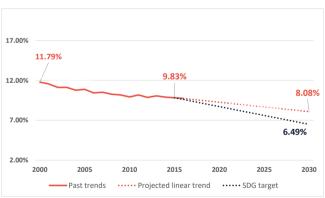


TRENDS

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



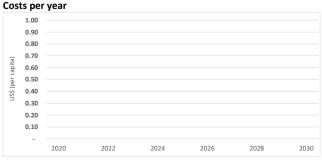
Probability of premature death from cancer per year

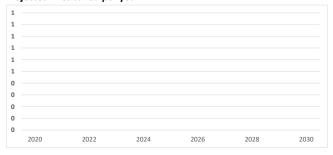


INVESTMENT CASE (2019)

*High income

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





SLOVAKIA

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		^o per 10,000 cancer patients Available staff in Ministry of Health who dedicates significant proportion of their	2019	
Quality of mortality registration	2007-2016	High	time to cancer	2019	yes
# of external beam radiotherapy	2019	6.8	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	0.8	# of medical physicist ^a	2019	10.3
# of mammographs ^a	2020	35.6	# of surgeons ^a	2014	342.3
# of CT scanners ^a	2020	46.5	# of radiologist ^a	2019	n/a
# of MRI scanners ^a	2020	17.4	# of nuclear medicine physician ^a	2019	18.1
# of PET or PET/CT scanners ^a	2020	2.7	# of medical & pathology lab scientists ^a	2015	n/a
FORMULATING RESPONSE					
FORWIOLATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	4.1
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	3	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	4602
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			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	175

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

Annual cancer cases (0-14 years old) 2020 Early detection programme/guidelines 2019

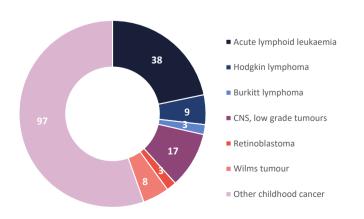
2019

yes

yes

Annual cancer cases (0-14 years old)

Defined referral system



SLOVENIA

BURDEN OF CANCER



2,078,654

Total # cancer cases (2018)
13,503

Total # cancer deaths (2018)
6,396

Premature deaths from NCDs (2016)

4,414

Cancer as % of NCD premature deaths (2016)

54.8%

Most common cancer cases (2018)

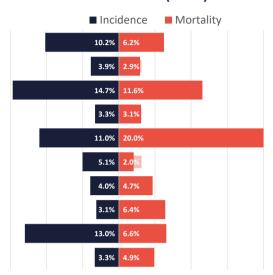


Melanoma of skin

Non-Hodgkin lymphoma

Pancreas Prostate

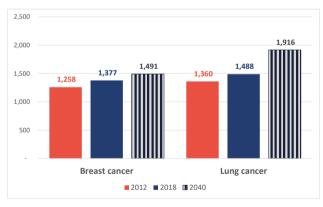
Stomach



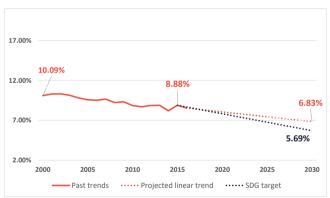


TRENDS

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



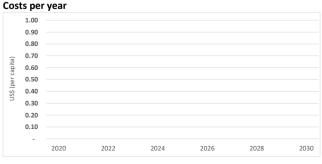
Probability of premature death from cancer per year

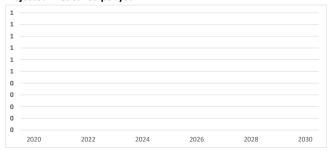


INVESTMENT CASE (2019)

*High income

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





■ CNS, low grade tumours

Other childhood cancer

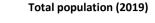
RetinoblastomaWilms tumour

SLOVENIA

^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 time to cancer	2019	yes
# of external beam radiotherapy	2019	7.4	# of radiation oncologist ^a	2019	23.0
(photon,electron) ^a	2023		# of medical physicist ^a	2019	n/a
# of mammographs ^a	2020	27.4	# of surgeons ^a	2013	631.7
of CT scanners ^a	2020	30.4	# of radiologist ^a	2019	199.0
of MRI scanners ^a	2020	25.2	# of nuclear medicine physician ^a	2019	28.1
# of PET or PET/CT scanners ^a	2020	2.2	# 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	1.5
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	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	yes	Palliative care availability: community/home-based care	2019	generally available
dof treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	5378
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	45	Annual cancer cases (0-14 years old)	2020	53
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
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	Allinaar carreer cases (o 14 years ora)		
Early detection programme/guidelines	2019	no		■ Acute	lymphoid leukaemia
Defined referral system	2019	no	12		
				■ nodgi	kin lymphoma
				Burkit	t lymphoma



BURDEN OF CANCER



10,036,391

Total # cancer cases (2018) 60,853

Total # cancer deaths (2018)
23,865

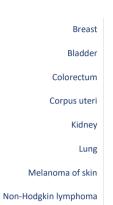
Premature deaths from NCDs (2016)

14,043

Cancer as % of NCD premature deaths (2016)

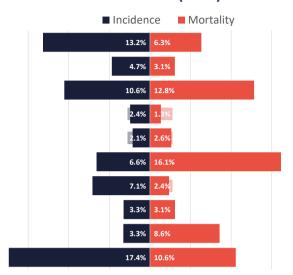
46.5%

Most common cancer cases (2018)



Pancreas

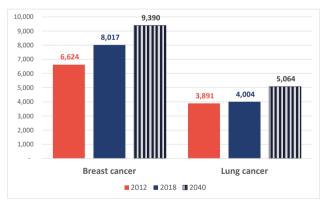
Prostate



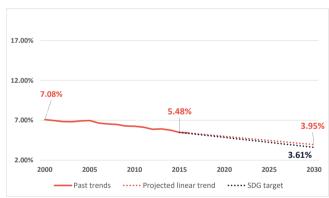


TRENDS

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



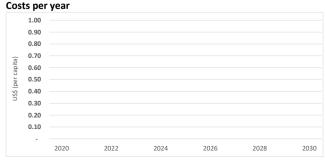
Probability of premature death from cancer per year

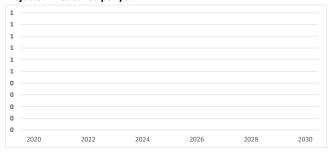


INVESTMENT CASE (2019)

*High income

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





■ Burkitt lymphoma

■ Retinoblastoma

■ Wilms tumour

■ CNS, low grade tumours

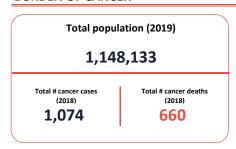
Other childhood cancer

SWEDEN

a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
, (. 20.1)			^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	2019	11.0	# of radiation oncologist ^a	2019	109.9
(photon,electron) ^a			# of medical physicist ^a	2019	49.3
# of mammographs ^a	2020	22.7	# of surgeons ^a	2013	642.4
# of CT scanners ^a	2020	41.6	# of radiologist ^a	2019	251.0
# of MRI scanners ^a	2020	30.4	# of nuclear medicine physician ^a	2019	12.0
# of PET or PET/CT scanners ^a	2020	2.6	# 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	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	8911
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	40			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	75	Annual cancer cases (0-14 years old)	2020	287
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	don't know
Screening programme type	2019	organised	Defined referral system	2019	don't know
Screening programme method	2019	PAP smear	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	70% or more	Aimual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes		₽ Λου±ο	lumphoid loukasmis
Defined referral system	2019	yes	65		lymphoid leukaemia
				■ Hodgk	kin lymphoma
				1.11	

ESWATINI

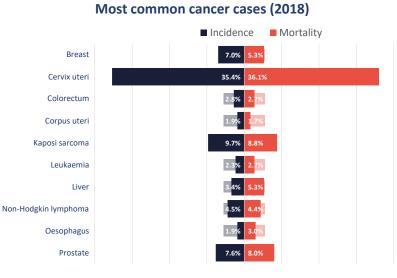
BURDEN OF CANCER



Premature deaths from NCDs (2016)
2,031

Cancer as % of NCD premature deaths (2016)

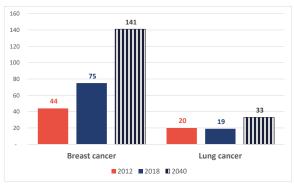
20.1%



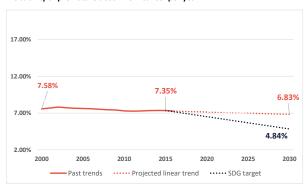


TRENDS

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

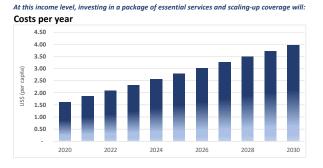


Probability of premature death from cancer per year

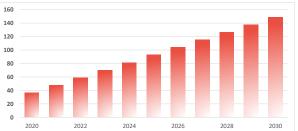


INVESTMENT CASE (2019)

*Lower middle income







Other childhood cancer

ESWATINI

^o per 10,000 cancer patients Availability 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	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			# of medical physicist ^a	2019	n/
of mammographs ^a	2020	n/a	# of surgeons ^a	n/a	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	0.
of PET or PET/CT scanners ^a	2020	n/a	# of medical & pathology lab scientists ^a	2011	n/
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	9.3
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally availab
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availab
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally availab
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	8
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	4
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	n
Screening programme type	2019	n/a	Defined referral system	2019	don't kno
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			
And the state of the section of the	2240	death)	7	■ Acute	lymphoid leukaemia
Defined referral system	2019	don't know		■ Hodgl	rin lymphoma
			2	■ Burkit	t lymphoma
			23	■ CNS, I	ow grade tumours
			2	■ Retino	bblastoma
			5	■ 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

SEYCHELLES

BURDEN OF CANCER



Total # cancer cases (2018)

Total # cancer deaths (2018)

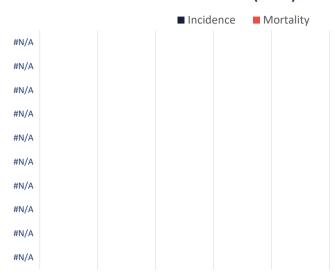
Premature deaths from NCDs (2016)

295

Cancer as % of NCD premature deaths (2016)

26.3%

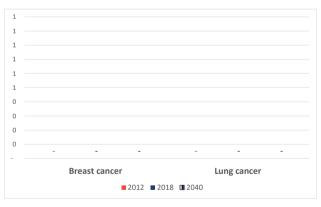
Most common cancer cases (2018)



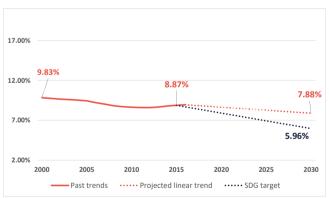


TRENDS

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



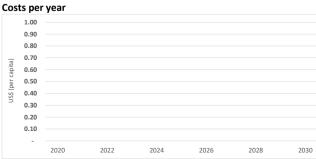
Probability of premature death from cancer per year

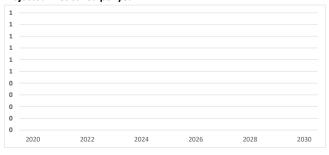


INVESTMENT CASE (2019)

*High income

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





SEYCHELLES

HEALTH SYSTEM CAPACITY

Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**	2013	g quanty . zen	^a 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	. 1.	# of radiation oncologist ^a	2019	n/a
(photon,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	2004	n/a

FORMULATING RESPONSE

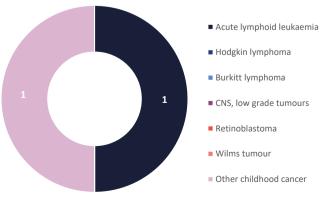
Integrated NCD plan	2019	operational
NCCP (including cancer types)	2019	under development
MPOWER measures fully implemented and achieved	2018	3
Cancer management guidelines	2019	no
Palliative care included in their operational, integrated NCD plan	2019	yes
# of treatment services (surgery, radiotherapy,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

# Public cancer centres per 10,000 cancer patients	2019	n/a			
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)			
Pathology services	2019	generally available			
Bone marrow transplantation capacity	2019	generally not available			
Palliative care availability: community/home-based care	2019	generally not available			
Availability of opioids* for pain management	2015-2017	237			
*Defined daily doses for statistical purposes (S-DDD) per miliion inhabitants per day					

GLOBAL INITIATIVES

Elimination of Cervical Cancer		
HPV vaccination programme coverage	2018	99
Cervical cancer screening	2019	no
Screening programme type	2019	n/a
Screening programme method	2019	n/a
Screening participation rates	2019	n/a
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes

Global Initiative for Childhood Cancer		
Annual cancer cases (0-14 years old)	2020	2
Early detection programme/guidelines	2019	no
Defined referral system	2019	yes
Annual cancer cases (0-14 years old)		



SYRIAN ARAB REPUBLIC

BURDEN OF CANCER



(2018) **23,170** (2018) 14,042

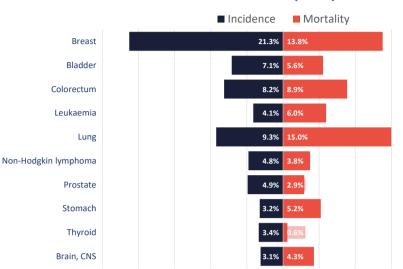
Premature deaths from NCDs (2016)

26,788

Cancer as % of NCD premature deaths (2016)

31.2%

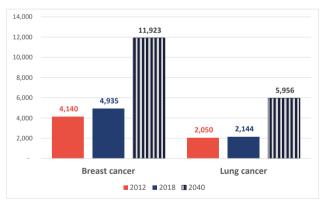
Most common cancer cases (2018)



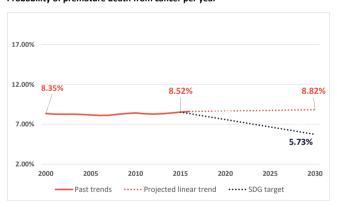


TRENDS

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

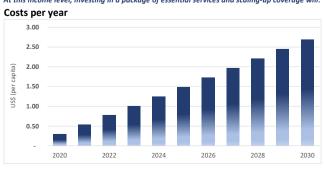


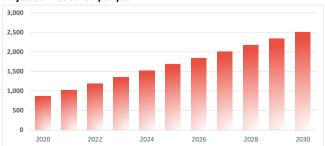
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







SYRIAN ARAB REPUBLIC

^a per 10,000 cancer patients Availability of population-based cancer	2010	Registration activity	WORKFORCE			
registry (PBCR)**	2019	Registration activity	° 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	3.0	# of radiation oncologist ^a	2019	n/a	
(photon,electron) ^a	2013	3.0	# of medical physicist ^a	2019	12.9	
# of mammographs ^a	2020	n/a	# of surgeons ^a	n/a	n/a	
# of CT scanners ^a	2020	25.9	# of radiologist ^a	2019	n/a	
# of MRI scanners ^a	2020	19.4	# of nuclear medicine physician ^a	2019	4.3	
# of PET or PET/CT scanners ^a	2020	0.9	# 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	3.0	
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)	
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available	
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available	
Palliative care included in their operational, integrated NCD plan	2019	n/a	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	47	
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	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	808	
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no	
Screening programme type	2019	organised	Defined referral system	2019	no	
			20	2013		
Screening programme method	2019	PAP smear	Annual cancer cases (0-14 years old)			
Screening participation rates	2019	don't know				
Early detection programme/guidelines	2019	yes		- A	hand beid leader once	
Defined referral system	2019	yes	■ Acute lymphoid leukaemia			
	2019	yes	101	■ Hodgkin lymphoma		
				■ Burkit	t lymphoma	
			447	■ CNS, low grade tumours		
			23	■ Retino	oblastoma	
			40	■ Wilms	s tumour	
			43	■ 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



BURDEN OF CANCER



(2018)

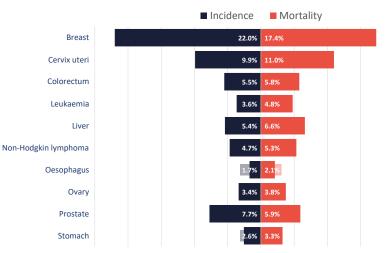
Total # cancer cases (2018) 7,491 5,616

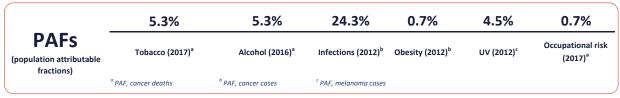
Premature deaths from NCDs (2016) 21,043

Cancer as % of NCD premature deaths (2016)

16.7%

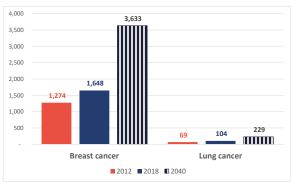
Most common cancer cases (2018)



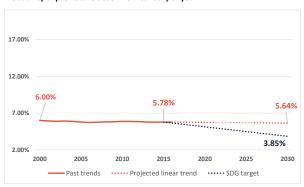


TRENDS

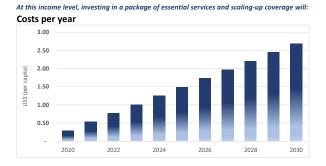
Estimated past and future trends in total cases per year (breast and lung)

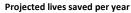


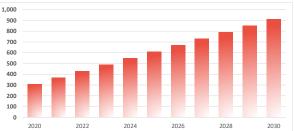
Probability of premature death from cancer per year



INVESTMENT CASE (2019)







Other childhood cancer

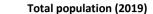


° per 10,000 cancer patients Availability of population-based cancer			WORKFORCE		
registry (PBCR)**	2019	No information	^a per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	ye
of external beam radiotherapy	2010		# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	n/
# of mammographs ^a	2020	20.0	# of surgeons ^a	2013	24.
# of CT scanners ^a	2020	4.0	# of radiologist ^a	2019	n/
# of MRI scanners ^a	2020	1.3	# of nuclear medicine physician ^a	2019	0.
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2004	148.
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	0 cancer(s
MPOWER measures fully implemented and achieved	2018	3	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, integrated NCD plan	2019	no	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 m	iliion 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	95
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	2/2	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	n/a no			
,			97	■ Acute lyr	nphoid leukaemia
Defined referral system	2019	no	67	■ Hodgkin	lymphoma
			25	■ Burkitt ly	mphoma
			38	■ CNS, low	grade tumours
			630	■ 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



BURDEN OF CANCER



8,082,359

Total # cancer cases (2018)
4,745

Total # cancer deaths (2018)

3,301

Premature deaths from NCDs (2016)

11,463

Cancer as % of NCD premature deaths (2016)

18.6%

Most common cancer cases (2018)

Breast

Cervix uteri

Colorectum

Kaposi sarcoma

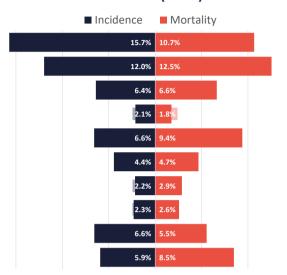
Liver

Non-Hodgkin lymphoma

Oesophagus

Ovary Prostate

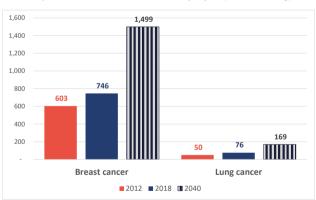
Stomach



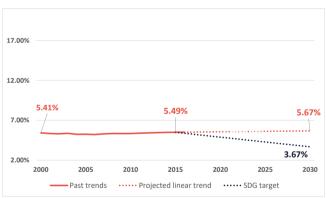
8.0% 4.5% 31.7% 0.9% 13.6% 0.8% **PAFs** Occupational risk UV (2012)° Tobacco (2017)^a Alcohol (2016)^a Infections (2012)^b Obesity (2012)^b (population attributable (2017)^a fractions) ^a PAF, cancer deaths ^b PAF, cancer cases ^c PAF, melanoma cases

TRENDS

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



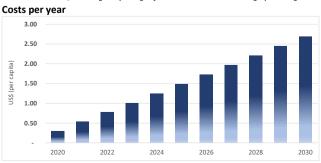
Probability of premature death from cancer per year

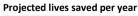


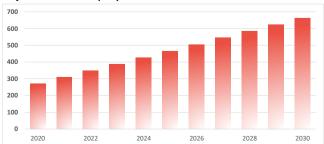
INVESTMENT CASE (2019)

*Low income

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







Other childhood cancer

* per 10,000 cancer patients			WORKFORCE		
Availability of population-based cancer registry (PBCR)**	2019	Registration activity	° per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy			# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	0.0	# of medical physicist ^a	2019	n/a
# of mammographs ^a	2020	19.0	# of surgeons ^a	2014	42.1
# of CT scanners ^a	2020	16.9	# of radiologist ^a	2019	n/a
# of MRI scanners ^a	2020	2.1	# of nuclear medicine physician ^a	2019	0.0
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2015	857.7
FORMULATING RESPONSE					
Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	n/a
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	3
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per mi	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		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	445
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	7/2	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	n/a yes			
			49	■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	23	■ Hodgl	kin lymphoma
			31	■ Burkit	t lymphoma
			14	■ CNS, I	ow grade tumours
			271 22	■ Retino	oblastoma
			35	■ Wilms	s tumour
			Si di Si	■ 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

THAILAND

BURDEN OF CANCER



69,625,581

Total # cancer cases (2018)

170,495

Total # cancer deaths (2018)
114,199

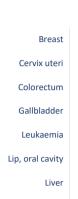
Premature deaths from NCDs (2016)

165,478

Cancer as % of NCD premature deaths (2016)

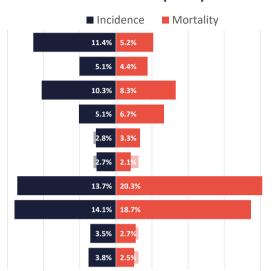
36.1%

Most common cancer cases (2018)



Lung
Non-Hodgkin lymphoma

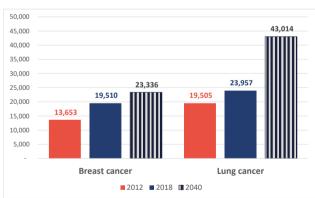
Prostate



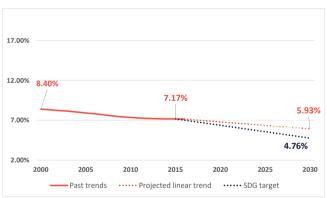


TRENDS

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



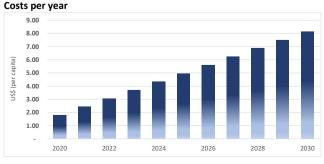
Probability of premature death from cancer per year

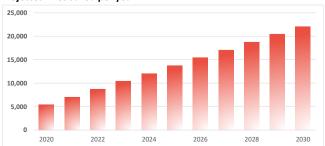


INVESTMENT CASE (2019)

*Upper middle income

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





■ Wilms tumour

Other childhood cancer

THAILAND

° per 10,000 cancer patients Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
Quality of mortality registration***	2007-2016	Low	^a per 10,000 concer patients Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy			# of radiation oncologist ^a	2019	4.2
(photon,electron) ^a	2019	5.9	# of medical physicist ^a	2019	8.8
# of mammographs ^a	2020	12.6	# of surgeons ^a	2014	251.3
of CT scanners ^a	2020	24.1	# of radiologist ^a	2019	80.9
of MRI scanners ^a	2020	3.7	# of nuclear medicine physician ^a	2019	3.0
# of PET or PET/CT scanners ^a	2020	0.6	# of medical & pathology lab scientists ^a	2016	n/a
FORMULATING RESPONSE					
integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	3.6
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, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
d of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	143
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	30			
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	1233
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	organised	Defined referral system	2019	no
Screening programme method	2019	PAP smear			
Screening participation rates	2019	>50% and <70%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
Defined referral system	2019	vee		■ Acute	lymphoid leukaemia
Denneu Teleffdi Systeifi	2019	yes	366	■ Hodgk	kin lymphoma
				■ Burkit	t lymphoma
			656	CNS, I	ow grade tumours
			62	■ Retino	oblastoma

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

TAJIKISTAN

BURDEN OF CANCER

Total population (2019)

9,321,023

Total # cancer cases (2018) 5,568

Total # cancer deaths (2018) 4,020

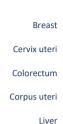
Premature deaths from NCDs (2016)

12,792

Cancer as % of NCD premature deaths (2016)

22.6%

Most common cancer cases (2018)

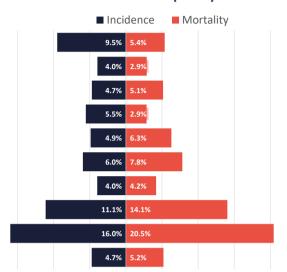


Lung

Non-Hodgkin lymphoma

Oesophagus Stomach

Brain, CNS



PAFs

(population attributable fractions)

Tobacco (2017)^a

13.3%

^b PAF, cancer cases

6.6%

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

Obesity (2012)^b

2.6%

22.4%

^c PAF, melanoma cases

27.3%

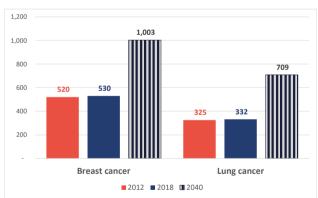
0.8%

Occupational risk UV (2012)° (2017)^a

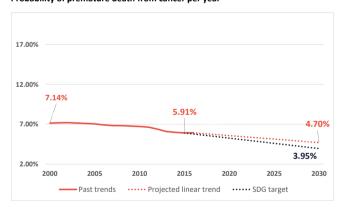
TRENDS

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

^a PAF, cancer deaths



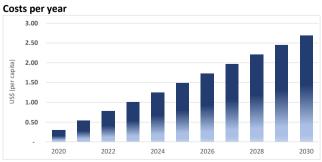
Probability of premature death from cancer per year

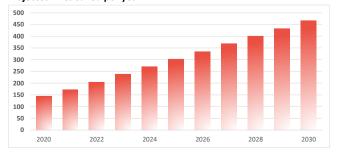


INVESTMENT CASE (2019)



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





Other childhood cancer

TAJIKISTAN

^a per 10,000 cancer patients Availability of population-based cancer	2010	Designation activity	WORKFORCE		
registry (PBCR)**	2019	Registration activity	^a 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	2019	1.8	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	1.0	# of medical physicist ^a	2019	n/a
# of mammographs ^a	2020	9.0	# of surgeons ^a	2014	2350.9
# of CT scanners ^a	2020	18.0	# of radiologist ^a	2019	n/a
# of MRI scanners ^a	2020	12.6	# of nuclear medicine physician ^a	2019	0.0
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	n/a	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	3.6
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	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	2	Availability of opioids* for pain management	2015-2017	6
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	378
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	2/2	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	n/a no			
early detection programme/galdelines	2013	110		■ Acute	lymphoid leukaemia
Defined referral system	2019	no	112	■ Hodgk	in lymphoma
			112	■ Burkit	t lymphoma
			202	■ CNS, Io	ow grade tumours
			19	■ Retino	blastoma
			12	■ 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

TURKMENISTAN

BURDEN OF CANCER

Total population (2019)

5,942,094

Total # cancer cases (2018)
5,828

Total # cancer deaths (2018)
4,079

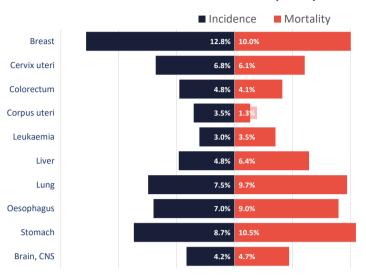
Premature deaths from NCDs (2016)

15,023

Cancer as % of NCD premature deaths (2016)

20.9%

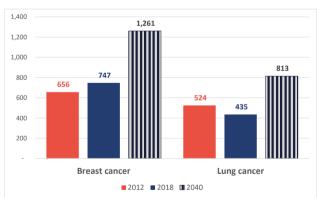
Most common cancer cases (2018)



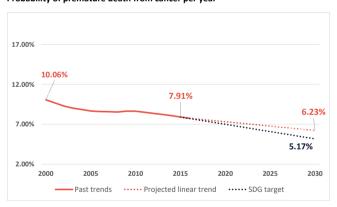


TRENDS

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



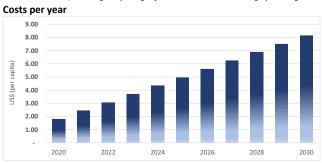
Probability of premature death from cancer per year

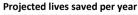


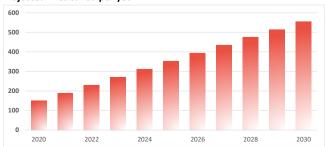
INVESTMENT CASE (2019)

*Upper middle income

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







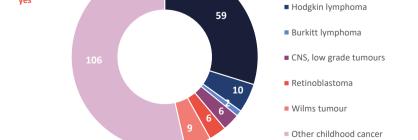
TURKMENISTAN

HEALTH SYSTEM CAPACITY

Early detection programme/guidelines

Defined referral system

^e per 10,000 cancer patients Availability of population-based cancer	2010	Registration activity	WORKFORCE		
registry (PBCR)**	2019	Registration activity	a 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	12.0	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	12.0	# of medical physicist ^a	2019	n/a
# of mammographs ^a	2020	n/a	# of surgeons ^a	2014	2697.3
# of CT scanners ^a	2020	27.5	# of radiologist ^a	2019	n/a
# of MRI scanners ^a	2020	20.6	# of nuclear medicine physician ^a	2019	n/a
# 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	8.6
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	15
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	95.2	Annual cancer cases (0-14 years old)	2020	198
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	yes
Screening programme type	2019	opportunistic	Defined referral system	2019	yes
Screening programme method	2019	visual inspection			
Screening participation rates	2019	>50% and <70%	Annual cancer cases (0-14 years old)		



■ Acute lymphoid leukaemia

2019

2019

yes

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

TIMOR-LESTE

BURDEN OF CANCER



1,293,120

Total # cancer cases (2018) **660**

Total # cancer deaths (2018)

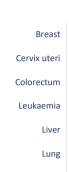
Premature deaths from NCDs (2016)

1,401

Cancer as % of NCD premature deaths (2016)

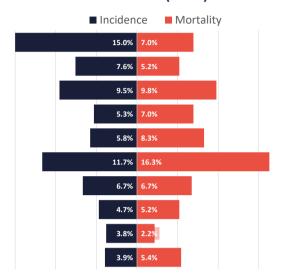
33.8%

Most common cancer cases (2018)



Nasopharynx Non-Hodgkin lymphoma

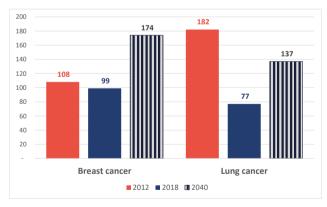
> Prostate Stomach



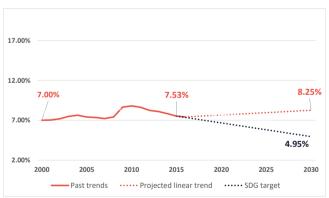


TRENDS

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



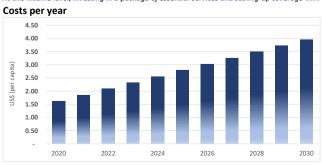
Probability of premature death from cancer per year

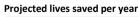


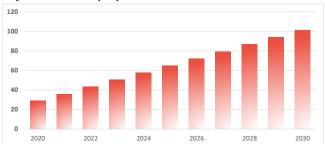
INVESTMENT CASE (2019)

*Lower middle income

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







■ Wilms tumour

Other childhood cancer

TIMOR-LESTE

^a per 10,000 cancer patients Availability of population-based cancer	2019	No information	WORKFORCE		
registry (PBCR)**	2013	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	yes
# 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	n/a
# of mammographs ^a	2020	n/a	# of surgeons ^a	2014	75.8
# 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	0.0
# 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	15.2
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally not available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	0	Availability of opioids* for pain management	2015-2017	91
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per m	niliion inhabitants per	r day
Breast cancer screening program: Starting age, target population	2019	18			
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	51
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	opportunistic	Defined referral system	2019	yes
Screening programme method	2019	visual inspection	Annual concer coses (0.14 years old)		
Screening participation rates	2019	<10%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes		■ Acute lyr	mphoid leukaemia
Defined referral system	2019	yes			lymphoma
			15	■ Burkitt ly	
			26		grade tumours
				■ Retinobl	astoma
			3	- Ketinobi	astoma

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

TONGA

BURDEN OF CANCER



104,497

Total # cancer cases (2018)

n/a

Total # cancer deaths (2018)

Premature deaths from NCDs (2016)

190

Cancer as % of NCD premature deaths (2016)

31.4%

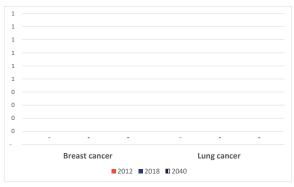
Most common cancer cases (2018)



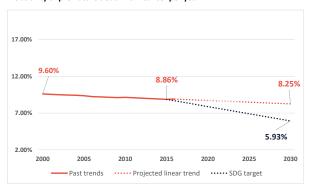


TRENDS

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



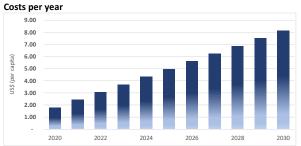
Probability of premature death from cancer per year

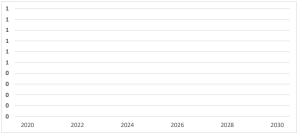


INVESTMENT CASE (2019)

*Upper middle income







Other childhood cancer

TONGA

Availability of population-based cancer	2010	Registration activity	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	yes
f of external beam radiotherapy	2010	- la	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	n/a	# of medical physicist ^a	2019	n/a
f 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	2013	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	2 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally no
alliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
f of treatment services (surgery, adiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	37
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	5
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
creening programme type	2019	opportunistic	Defined referral system	2019	no
creening programme method	2019	PAP smear	Annual concess cocc (0.14 years old)		
creening participation rates	2019	<10%	Annual cancer cases (0-14 years old)		
arly detection programme/guidelines	2019	yes			
		•		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes		■ Hodgk	in lymphoma
			2	■ Burkitt	lymphoma
				CNS, lo	ow grade tumours
			3	■ Retino	blastoma
				■ Wilms	tumour
			3		

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

TRINIDAD AND TOBAGO

BURDEN OF CANCER



1,394,969

Total # cancer cases (2018) **3,369**

Total # cancer deaths (2018)
1,988

Premature deaths from NCDs (2016)

4,027

Cancer as % of NCD premature deaths (2016)

22.9%

Most common cancer cases (2018)

Breast
Cervix uteri
Colorectum

Corpus uteri

Lung

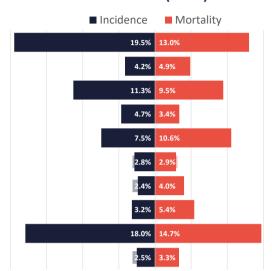
Non-Hodgkin lymphoma

Ovary

Pancreas

Prostate

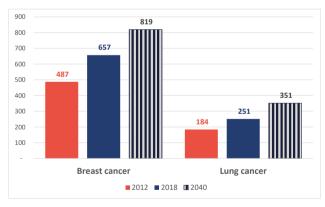
Stomach



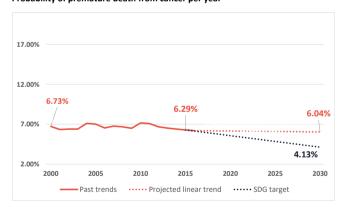
13.0% 4.4% 11.0% 5.4% 45.4% 1.3% **PAFs** Occupational risk UV (2012)° Tobacco (2017)^a Alcohol (2016)^a Infections (2012)^b Obesity (2012)^b (population attributable (2017)^a fractions) ^a PAF, cancer deaths ^b PAF, cancer cases ^c PAF, melanoma cases

TRENDS

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



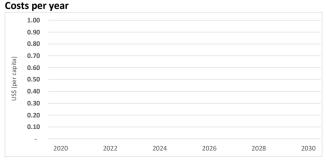
Probability of premature death from cancer per year

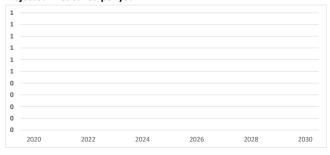


INVESTMENT CASE (2019)

*High income

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





■ Retinoblastoma

■ Wilms tumour

Other childhood cancer

TRINIDAD AND TOBAGO

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	PBCR	WORKFORCE		
registry (i betty			° 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	11.9	# of radiation oncologist ^a	2019	23.7
(photon, electron) ^a	2013	11.5	# of medical physicist ^a	2019	23.7
# of mammographs ^a	2020	14.8	# of surgeons ^a	2014	733.2
# of CT scanners ^a	2020	47.5	# of radiologist ^a	2019	89.0
# of MRI scanners ^a	2020	17.8	# of nuclear medicine physician ^a	2019	8.9
# 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	3.0
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 available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	132
Breast cancer screening program	2019	don't know	*Defined daily doses for statistical purposes (S-DDD) per m	illiion 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	14.1	Annual cancer cases (0-14 years old)	2020	42
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	don't know
Screening programme type	2019	organised	Defined referral system	2019	don't know
Screening programme method	2019	PAP smear	Annual concess coses (O.14 years ald)		
Screening participation rates	2019	10%-50%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
Defined referral system	2019	yes			lymphoid leukaemia
•		•	11		kin lymphoma
				■ Burkit	t lymphoma
			24	■ CNS, I	ow grade tumours

TUNISIA

BURDEN OF CANCER



11,694,721

Total # cancer cases (2018) 15,894

Total # cancer deaths (2018) 10,092

Premature deaths from NCDs (2016)

20,010

Cancer as % of NCD premature deaths (2016)

24.0%

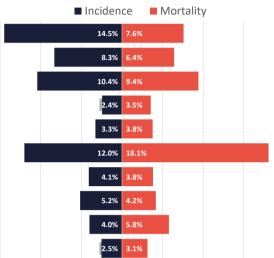
Most common cancer cases (2018)

Breast Bladder Colorectum Larynx Leukaemia

Lung Non-Hodgkin lymphoma

Prostate

Stomach Brain, CNS



PAFs (population attributable fractions)

Tobacco (2017)^a

29.7%

Alcohol (2016)^a

^b PAF, cancer cases

1.4%

10.7% Infections (2012)^b

^c PAF, melanoma cases

4.4% Obesity (2012)^b 6.2%

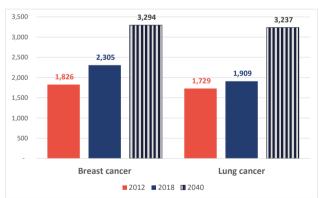
2.7%

Occupational risk UV (2012)° (2017)^a

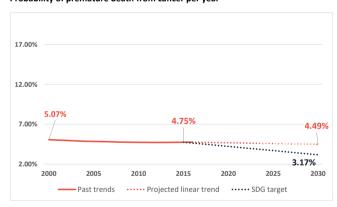
TRENDS

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

^a PAF, cancer deaths

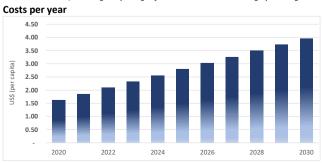


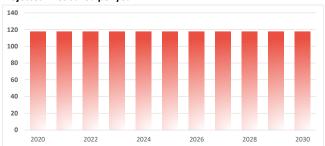
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

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





■ Wilms tumour

Other childhood cancer

TUNISIA

Availability of population-based cancer					
registry (PBCR)**	2019	PBCR	WORKFORCE 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	2019	yes
	2007 2010	70.7.0	time to cancer	2019	
# of external beam radiotherapy (photon,electron) ^a	2019	14.5	# of radiation oncologist ^a # of medical physicist ^a	2019	n/a 18.9
# of mammographs ^a	2020	141.6	# of surgeons ^a	2014	205.7
# of CT scanners ^a	2020	91.9	# of radiologist ^a	2019	503.3
# of MRI scanners ^a	2020	31.5	# of nuclear medicine physician ^a	2019	37.8
# of PET or PET/CT scanners ^a	2020	1.9	# of medical & pathology lab scientists ^a	2004	225.2
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	6.3
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	4 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	170
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per n	niliion inhabitants	per day
Breast cancer screening program: Starting	2019	35			
age, target population					
age, target population GLOBAL INITIATIVES					
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	564
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage	2018 2019	n/a yes		2020 2019	564 yes
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening			Annual cancer cases (0-14 years old)		
	2019	yes	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	yes
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type Screening programme method	2019 2019	yes organised PAP smear	Annual cancer cases (0-14 years old) Early detection programme/guidelines	2019	yes
GLOBAL INITIATIVES Elimination of Cervical Cancer HPV vaccination programme coverage Cervical cancer screening Screening programme type	2019 2019 2019	yes	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system	2019	yes
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%	Annual cancer cases (0-14 years old) Early detection programme/guidelines Defined referral system Annual cancer cases (0-14 years old)	2019	yes
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	yes yes
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% 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	yes yes 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% 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 Hodge Burkit	yes yes lymphoid leukaemia

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

TURKEY

BURDEN OF CANCER



83,429,607

Total # cancer cases (2018)
210,537

Total # cancer deaths (2018)
116,710

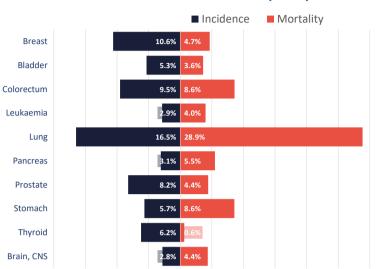
Premature deaths from NCDs (2016)

134,367

Cancer as % of NCD premature deaths (2016)

46.1%

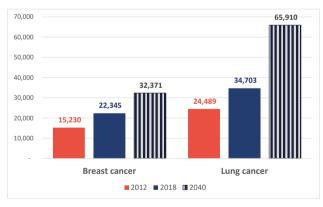
Most common cancer cases (2018)



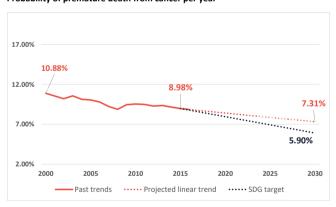


TRENDS

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



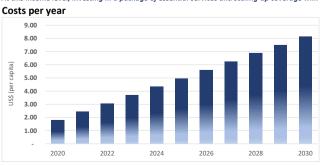
Probability of premature death from cancer per year

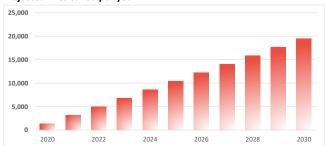


INVESTMENT CASE (2019)

*Upper middle income

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





■ Retinoblastoma

■ Wilms tumour

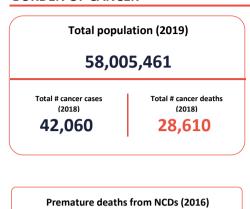
Other childhood cancer

TURKEY

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
registry (FBCK)			° 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	2019	12.6	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a			# of medical physicist ^a	2019	21.9
# of mammographs ^a	2020	69.1	# of surgeons ^a	2011	289.9
# of CT scanners ^a	2020	95.7	# of radiologist ^a	2019	190.0
# of MRI scanners ^a	2020	70.8	# of nuclear medicine physician ^a	2019	25.6
# of PET or PET/CT scanners ^a	2020	5.8	# 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	11.9
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	5	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally available
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	593
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			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	3031
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	organised	Defined referral system	2019	no
Screening programme method	2019	HPV test	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	70% or more	Allinear carreer cases (8 24 years ora)		
Early detection programme/guidelines	2019	yes		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	602		kin lymphoma
					t lymphoma
			204		ow grade tumours
			1678		

TANZANIA, UNITED REPUBLIC OF

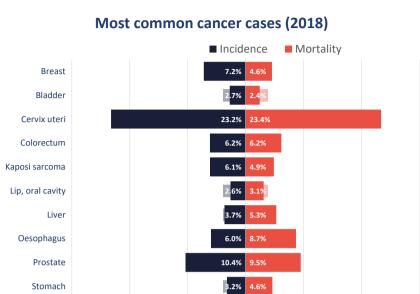
BURDEN OF CANCER

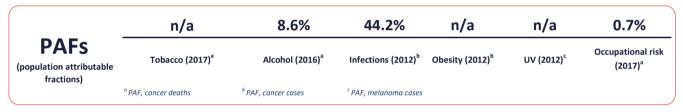


53,776

Cancer as % of NCD premature deaths (2016)

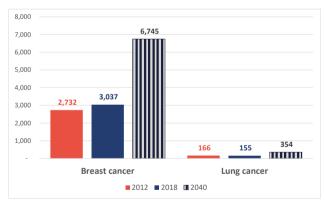
29.6%



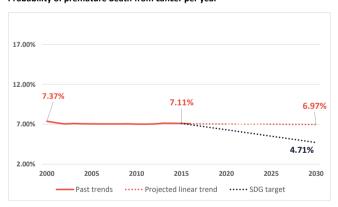


TRENDS

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

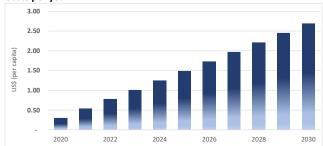


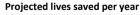
Probability of premature death from cancer per year

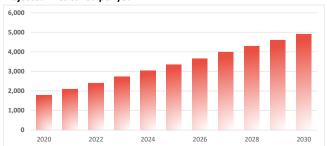


INVESTMENT CASE (2019)









■ Wilms tumour

Other childhood cancer

TANZANIA, UNITED REPUBLIC OF

^e per 10,000 cancer patients Availability of population-based cancer	2019	PBCR	WORKFORCE		
registry (PBCR)**	2019	PDCK	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	yes
of external beam radiotherapy	2010	4.2	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	1.2	# of medical physicist ^a	2019	1.0
of mammographs ^a	2020	25.9	# of surgeons ^a	2010	23.8
of CT scanners ^a	2020	5.9	# of radiologist ^a	2019	14.3
of MRI scanners ^a	2020	1.2	# of nuclear medicine physician ^a	2019	1.2
of PET or PET/CT scanners ^a	2020	0.2	# of medical & pathology lab scientists ^a	2014	22.1
FORMULATING RESPONSE					
ntegrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	1.0
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	0	Pathology services	2019	generally available
ancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, ntegrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
of treatment services (surgery, adiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	5
reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per n	niliion inhabitants	s per day
Breast 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	15.7	Annual cancer cases (0-14 years old)	2020	3501
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	no
creening programme type	2019	n/a	Defined referral system	2019	yes
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	yes	442		lymphoid leukaemia
			147		t lymphoma
			104		ow grade tumours
			2237	■ Retino	oblastoma
			244		

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

UGANDA

BURDEN OF CANCER



44,269,587

Total # cancer cases (2018) **32,617**

Total # cancer deaths (2018)
21,829

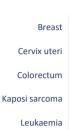
Premature deaths from NCDs (2016)

41,687

Cancer as % of NCD premature deaths (2016)

37.9%

Most common cancer cases (2018)

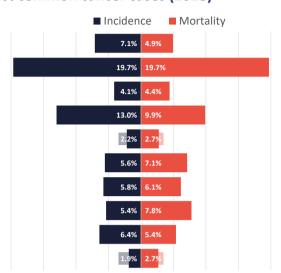


Liver

Non-Hodgkin lymphoma

Oesophagus

Prostate Stomach





Tobacco (2017)^a

6.3%

Alcohol (2016)^a

^b PAF, cancer cases

8.4%

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

36.0%

^c PAF, melanoma cases

0.6%

Obesity (2012)^b

72.0%

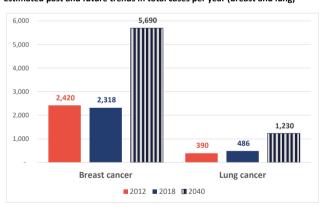
0.4%

Occupational risk (2017)^a

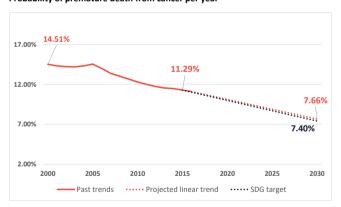
TRENDS

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

^a PAF, cancer deaths



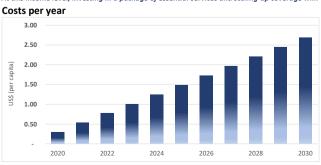
Probability of premature death from cancer per year

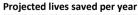


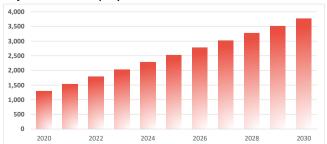
INVESTMENT CASE (2019)

*Low income

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







■ Wilms tumour

Other childhood cancer



a per 10,000 cancer patients			WORKEONEE		
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	** oper 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy			# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	0.3	# of medical physicist ^a	2019	0.0
# of mammographs ^a	2020	6.4	# of surgeons ^a	2012	62.5
# of CT scanners ^a	2020	7.1	# of radiologist ^a	2019	13.5
# of MRI scanners ^a	2020	0.9	# of nuclear medicine physician ^a	2019	0.9
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2015	n/a
FORMULATING RESPONSE					
Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	0.9
NCCP (including cancer types)	2019	under development	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally not available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	28
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per n	niliion inhabitants per	r 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	71.6	Annual cancer cases (0-14 years old)	2020	2833
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	A		
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no	250	■ Acute lyr	mphoid leukaemia
Defined referral system	2019	no	358	■ Hodgkin	lymphoma
			118	■ Burkitt ly	
			84	■ CNS, low	grade tumours
			108		

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

UKRAINE

BURDEN OF CANCER



43,993,643

Total # cancer cases (2018)
169,817

Total # cancer deaths (2018)

98,226

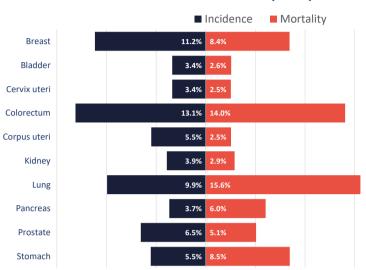
Premature deaths from NCDs (2016)

187,154

Cancer as % of NCD premature deaths (2016)

30.4%

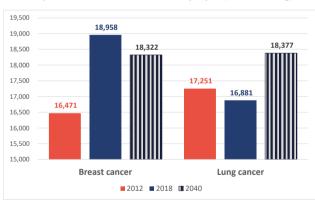
Most common cancer cases (2018)



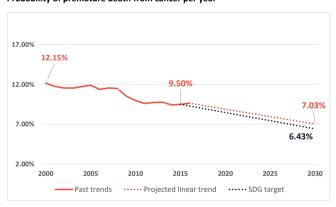


TRENDS

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



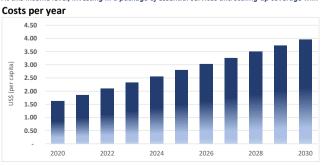
Probability of premature death from cancer per year

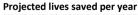


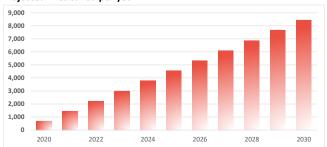
INVESTMENT CASE (2019)

*Lower middle income

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







RetinoblastomaWilms tumour

Other childhood cancer

UKRAINE

a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
registry (FBCK)			^a 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	2019	5.4	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2013	3.4	# of medical physicist ^a	2019	5.8
# of mammographs ^a	2020	24.7	# of surgeons ^a	n/a	n/a
# of CT scanners ^a	2020	22.3	# of radiologist ^a	2019	396.4
# of MRI scanners ^a	2020	8.9	# of nuclear medicine physician ^a	2019	n/a
# of PET or PET/CT scanners ^a	2020	0.2	# 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	1.6
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	1	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	63
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	n/a	Annual cancer cases (0-14 years old)	2020	1442
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	opportunistic	Defined referral system	2019	no
Screening programme method	2019	PAP smear	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	<10%	Allitual calicer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
Defined referral system	2019	yes	313		lymphoid leukaemia
,		,		■ Hodgk	kin lymphoma
				■ Burkit	tt lymphoma
			804	■ CNS, I	ow grade tumours

URUGUAY

BURDEN OF CANCER



3,461,731

Total # cancer cases (2018) **15,101**

Total # cancer deaths (2018) 8,589

Premature deaths from NCDs (2016)

7,403

Cancer as % of NCD premature deaths (2016)

46.0%

Most common cancer cases (2018)



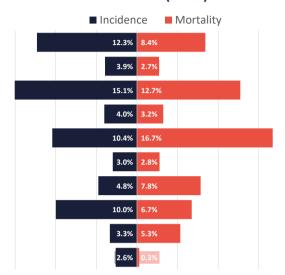
Lung

Non-Hodgkin lymphoma

Pancreas Prostate

Stomach

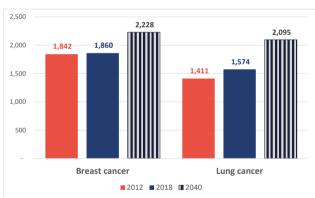
Thyroid



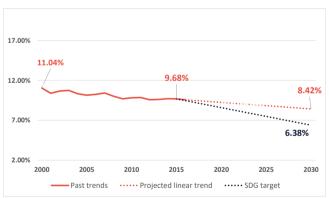


TRENDS

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



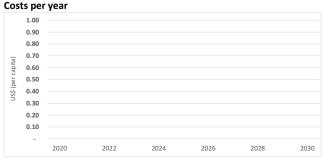
Probability of premature death from cancer per year

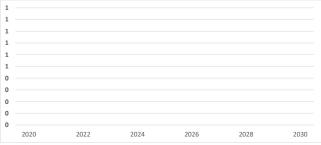


INVESTMENT CASE (2019)

*High income

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





■ Retinoblastoma

■ Wilms tumour

Other childhood cancer

URUGUAY

a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE ^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	2019	yes
# of cutowed boom vadiathouse.			time to cancer # of radiation oncologist ^a	2019	n/a
# of external beam radiotherapy photon,electron) ^a	2019	8.6	# of medical physicist ^a	2019	n/a
f of mammographs ^a	2020	41.1	# of surgeons ^a	2014	264.9
‡ of CT scanners ^a	2020	29.8	# of radiologist ^a	2019	103.3
# of MRI scanners ^a	2020	6.6	# of nuclear medicine physician ^a	2019	21.2
# of PET or PET/CT scanners ^a	2020	2.0	# of medical & pathology lab scientists ^a	2016	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	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,	2019	3	Availability of opioids* for pain management	2015-2017	465
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	41.9	Annual cancer cases (0-14 years old)	2020	96
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	4		
Screening participation rates	2019	70% or more	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
Defined referral system	2019	yes	25		lymphoid leukaemia
				■ Burkit	t lymphoma
			51	■ CNS, I	ow grade tumours

UNITED STATES OF AMERICA

BURDEN OF CANCER

Total population (2019)

329,064,917

Total # cancer cases (2018)
2,129,118

Total # cancer deaths (2018) 616,714

Premature deaths from NCDs (2016)

788,905

Cancer as % of NCD premature deaths (2016)

34.2%

Most common cancer cases (2018)



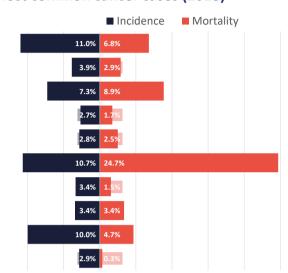
Kidney

Lung

Melanoma of skin Non-Hodgkin lymphoma

Prostate

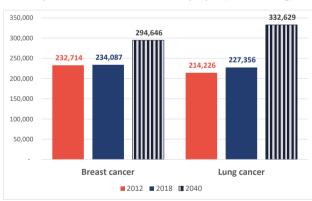
Thyroid



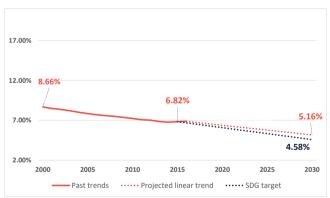
7.0% 4.1% 6.4% 90.5% 6.1% n/a **PAFs** Occupational risk UV (2012)° Tobacco (2017)^a Alcohol (2016)^a Infections (2012)^b Obesity (2012)^b (population attributable (2017)^a fractions) ^a PAF, cancer deaths ^b PAF, cancer cases ^c PAF, melanoma cases

TRENDS

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



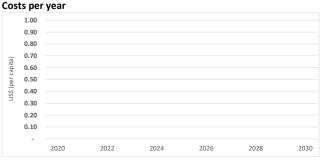
Probability of premature death from cancer per year

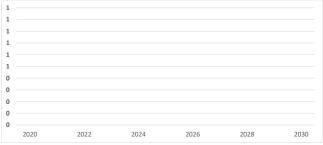


INVESTMENT CASE (2019)

*High income

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





RetinoblastomaWilms tumour

Other childhood cancer

UNITED STATES OF AMERICA

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
report y (i bert)			^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	yes
# of external beam radiotherapy	2019	18.0	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2023	20.0	# of medical physicist ^a	2019	41.6
# of mammographs ^a	2020	84.9	# of surgeons ^a	2011	538.6
# of CT scanners ^a	2020	65.2	# of radiologist ^a	2019	182.6
# of MRI scanners ^a	2020	57.5	# of nuclear medicine physician ^a	2019	18.3
# of PET or PET/CT scanners ^a	2020	11.3	# of medical & pathology lab scientists ^a	2010	2593.9
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	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	32394
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes (S-DDD) per n	niliion inhabitants	per day
Breast cancer screening program: Starting age, target population	2019	20			
GLOBAL INITIATIVES					
Elimination of Cervical Cancer			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	46	Annual cancer cases (0-14 years old)	2020	12284
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	0.44		
Screening participation rates	2019	<10%	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
Defined referral system	2019	yes	■ Acute lymphoid leukaemia 2658		
	2013	yes	2050	■ Hodgk	in lymphoma
			457	■ Burkiti	t lymphoma
			6690	CNS, lo	ow grade tumours

UZBEKISTAN

BURDEN OF CANCER

Total population (2019)

32,981,715

Total # cancer cases (2018) **25,309**

Total # cancer deaths (2018)
16,685

Premature deaths from NCDs (2016)

63,971

Cancer as % of NCD premature deaths (2016)

15.4%

Most common cancer cases (2018)

Breast
Cervix uteri
Colorectum

Liver Lung

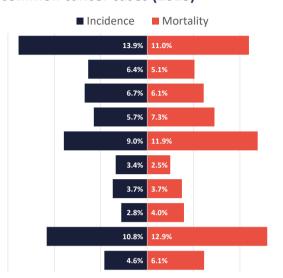
Non-Hodgkin lymphoma

0 , 1

Oesophagus Pancreas

Stomach

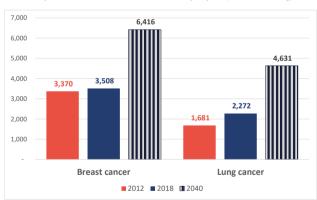
Brain, CNS



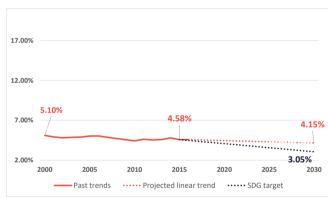
13.8% 7.8% 21.3% 3.0% 9.7% 1.0% **PAFs** Occupational risk UV (2012)° Tobacco (2017)^a Alcohol (2016)^a Infections (2012)^b Obesity (2012)^b (population attributable (2017)^a fractions) ^a PAF, cancer deaths ^b PAF, cancer cases ^c PAF, melanoma cases

TRENDS

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



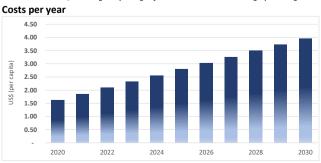
Probability of premature death from cancer per year

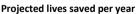


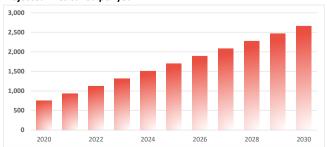
INVESTMENT CASE (2019)

*Lower middle income

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







■ Retinoblastoma

■ Wilms tumour

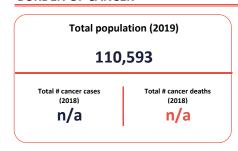
Other childhood cancer

UZBEKISTAN

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	PBCR	WORKFORCE		
registry (i ben)			oper 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	2.8	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	2.8	# of medical physicist ^a	2019	n/a
# of mammographs ^a	2020	17.8	# of surgeons ^a	n/a	n/a
# of CT scanners ^a	2020	9.5	# of radiologist ^a	2019	n/a
# of MRI scanners ^a	2020	28.4	# of nuclear medicine physician ^a	2019	2.4
# of PET or PET/CT scanners ^a	2020	0.4	# 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	6.3
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	1 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	12
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	1028
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	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	n/a	Allitual Calicel Cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
Defined referral system	2019	yes		■ Acute	lymphoid leukaemia
	2013	yes	306	■ Hodgk	kin lymphoma
				■ Burkit	t lymphoma
			545	■ CNS, I	ow grade tumours

SAINT VINCENT AND THE GRENADINES

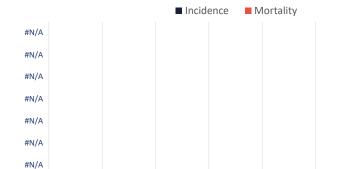
BURDEN OF CANCER



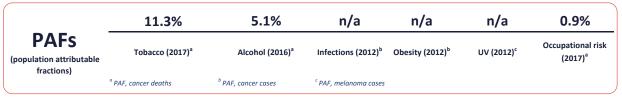
Premature deaths from NCDs (2016)

Cancer as % of NCD premature deaths (2016)

30.9%



Most common cancer cases (2018)



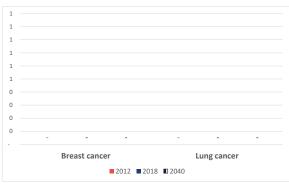
#N/A

#N/A

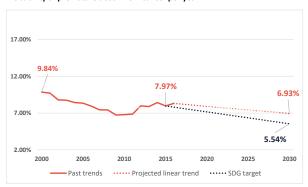
#N/A

TRENDS

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

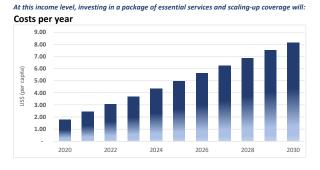


Probability of premature death from cancer per year



INVESTMENT CASE (2019)







SAINT VINCENT AND THE GRENADINES

per 10,000 cancer patients Availability of population-based cancer	2019	No information	WORKFORCE		
registry (PBCR)**	2013	No information	° 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	n/a	# of radiation oncologist ^a	2019	n/
photon,electron) ^a	2019	ii/ 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/
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	2004	n/
FORMULATING RESPONSE					
Integrated 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	0 cancer(s
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally availab
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally no availab
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally availab
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	2	Availability of opioids* for pain management	2015-2017	10
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per r	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	3.6	Annual cancer cases (0-14 years old)	2020	1
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			
			1	■ Acute	lymphoid leukaemia
Defined referral system	2019	no	1	■ Hodgk	in lymphoma
			1	Burkitt	lymphoma
				CNS, lo	ow grade tumours
				■ Retino	blastoma
			9	■ 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

VENEZUELA

BURDEN OF CANCER

Total population (2019)

28,515,829

Total # cancer cases (2018) **61,979**

Total # cancer deaths (2018) 30,968

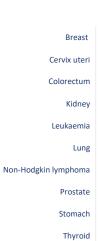
Premature deaths from NCDs (2016)

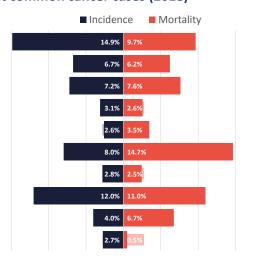
54,324

Cancer as % of NCD premature deaths (2016)

29.3%

Most common cancer cases (2018)

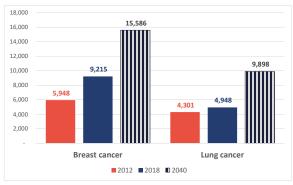




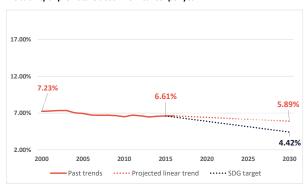
	n/a	5.5%	20.3%	n/a	n/a	1.7%
PAFS (population attributable	Tobacco (2017) ^a	Alcohol (2016) ^a	Infections (2012) ^b	Obesity (2012) ^b	UV (2012) ^c	Occupational risk (2017) ^a
fractions)	° PAF, cancer deaths	^b PAF, cancer cases	^c PAF, melanoma cases			

TRENDS

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

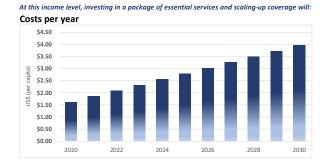


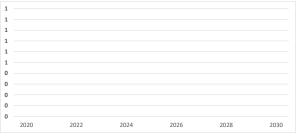
Probability of premature death from cancer per year



INVESTMENT CASE (2019)

*Upper middle income





VENEZUELA

HEALTH SYSTEM CAPACITY

per 10,000 cancer patients					
Availability of population-based cancer	2019	No information	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	6.0	# of radiation oncologist ^a	2019	n/a
photon,electron) ^a	2019	6.8	# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	32.9	# of surgeons ^a	2014	550.3
of CT scanners ^a	2020	n/a	# of radiologist ^a	2019	77.4
of MRI scanners ^a	2020	n/a	# of nuclear medicine physician ^a	2019	3.7
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 patients
NCCP (including cancer types)	2019	operational	Early detection programme/ guid 4 cancers (breast, cervix, colon, ch
MPOWER measures fully implemented and achieved	2018	2	Pathology services
Cancer management guidelines	2019	yes	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	#N/A	Availability of opioids* for pain management
Breast cancer screening program	2019	yes	*Defined daily doses for statistical purposes
Breast cancer screening program: Starting age, target population	2019	50	

# Public cancer centres per 10,000 cancer patients	2019	3.4
Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	#N/A
Pathology services	2019	generally available
Bone marrow transplantation capacity	2019	generally available
Palliative care availability: community/home-based care	2019	generally not available
Availability of opioids* for pain management	2015-2017	36

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

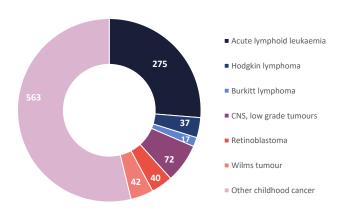
GLOBAL INITIATIVES

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

Global Initiative for Childhood Cancer

Annual cancer cases (0-14 years old)	2020	1046
Early detection programme/guidelines	2019	yes
Defined referral system	2019	ves

Annual cancer cases (0-14 years old)



 $[\]hbox{**The incidence estimates for this country have a high degree of uncertainty because they are not based}$

VIET NAM

BURDEN OF CANCER



96,462,108

Total # cancer cases (2018) **164,671**

Total # cancer deaths (2018)
114,871

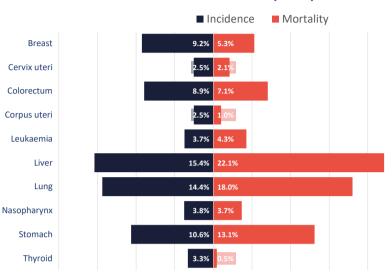
Premature deaths from NCDs (2016)

169,199

Cancer as % of NCD premature deaths (2016)

39.8%

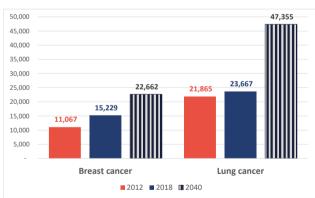
Most common cancer cases (2018)



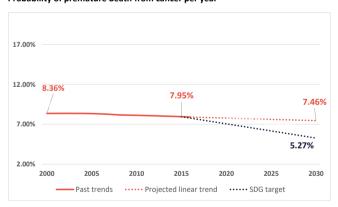


TRENDS

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



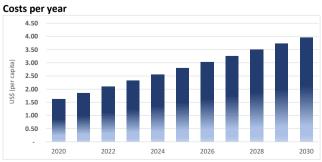
Probability of premature death from cancer per year

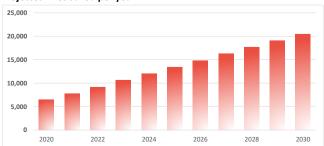


INVESTMENT CASE (2019)

*Lower middle income

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





RetinoblastomaWilms tumour

Other childhood cancer

VIET NAM

HEALTH STSTEIN CAPACITY					
^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	No coverage	dedicates significant proportion of their time to cancer	2019	yes
# of external beam radiotherapy	2019	2.2	# of radiation oncologist ^a	2019	6.8
(photon,electron) ^a			# of medical physicist ^a	2019	8.5
# of mammographs ^a	2020	n/a	# of surgeons ^a	n/a	n/a
# of CT scanners ^a	2020	7.3	# of radiologist ^a	2019	194.3
# of MRI scanners ^a	2020	3.1	# of nuclear medicine physician ^a	2019	6.7
# 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	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 not available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't know
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	49
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	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	2411
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	don't know
Screening programme type	2019	organised	Defined referral system	2019	don't know
Screening programme method	2019	PAP smear	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	10%-50%	Aimual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes		■ Acute lyr	nphoid leukaemia
Defined referral system	2019	yes	716		lymphoma
			710	■ Burkitt ly	mphoma
			1284	■ CNS, low	grade tumours
			121	- Deticable	

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

VANUATU

BURDEN OF CANCER

Total population (2019)

299,882

Total # cancer cases (2018)
225

Total # cancer deaths (2018)

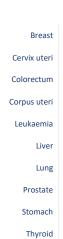
Premature deaths from NCDs (2016)

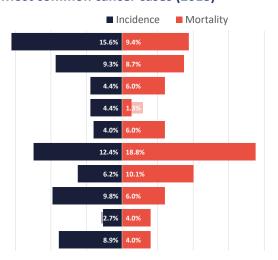
423

Cancer as % of NCD premature deaths (2016)

31.7%

Most common cancer cases (2018)

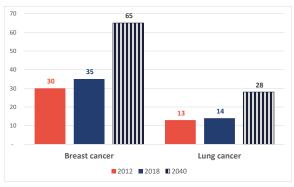




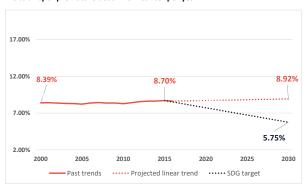


TRENDS

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

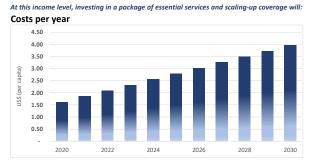


Probability of premature death from cancer per year

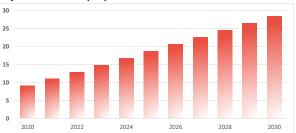


INVESTMENT CASE (2019)

*Lower middle income







■ CNS, low grade tumours ■ Retinoblastoma ■ Wilms tumour

Other childhood cancer

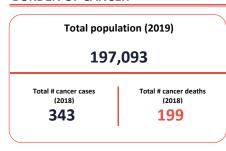
VANUATU

Availability of population-based cancer	2019	Registration activity	WORKFORCE		
registry (PBCR)**	2015	negistration activity	° 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	0.0	# of radiation oncologist ^a	2019	n/a
photon, electron) ^a	2015	0.0	# of medical physicist ^a	2019	n/a
of mammographs ^a	2020	0.0	# of surgeons ^a	2014	222.
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	0.
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2012	2622.7
FORMULATING RESPONSE					
Integrated NCD plan	2019	operational	# Public cancer centres per 10,000 cancer patients	2019	44.4
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	2 cancer(s
MPOWER measures fully implemented and achieved	2018	2	Pathology services	2019	generally availabl
Cancer management guidelines	2019	no	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 available
# 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 i	miliion 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	1:
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	ne
Screening programme type	2019	opportunistic	Defined referral system	2019	n
Screening programme method	2019	PAP smear	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	10%-50%	. Illinear carreer cases (0-14 years ora)		
Early detection programme/guidelines	2019	yes		■ Acute I	ymphoid leukaemia
Defined referral system	2019	yes		■ Hodgki	n 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

SAMOA

BURDEN OF CANCER

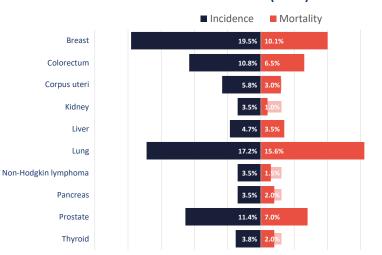


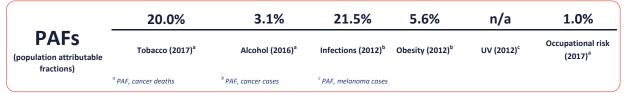
Premature deaths from NCDs (2016)

Cancer as % of NCD premature deaths (2016)

29.1%

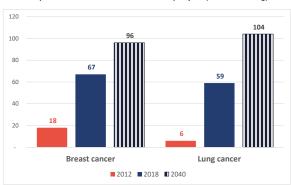
Most common cancer cases (2018)



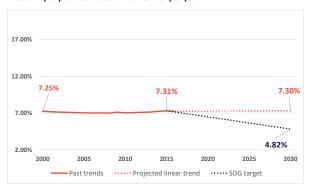


TRENDS

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

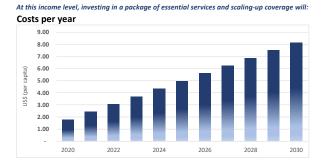


Probability of premature death from cancer per year

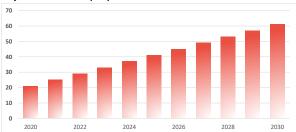


INVESTMENT CASE (2019)

*Upper middle income









pagetry (PECC)** Quality of mortality registration*** 2007-2016 No coverage Availables taff in Ministry of Health who decides significant proportion of their time to cancer and time to cancer time time time time time time time time	Availability of population-based cancer	2019	PBCR	WORKFORCE		
dedicates significant proportion of their time to cancer of the control beam radiotherapy and resist cancer screening program and control beam radiotherapy and resist cancer screening program and the control beam radiotherapy and resist cancer screening program by a control program radiotherapy and radiotherapy an	egistry (PBCR)**	2013	rbek			
of external beam radiotherapy hotoronic electron)** 2019 0.0 # of madistion oncologist* 2019 # of notion electron)** 2019 0.0 # of marginal physicist* 2019 # of notion electron)** 2020 29.2 # of radiologist* 2019 # of Authority 2019 # of MRI scanners* 2020 0.0 # of nuclear medicine physician* 2019 # of PET or PET/CT scanners* 2020 0.0 # of nuclear medicine physician* 2019	uality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their	2019	ne
## of medical physicist* 2019 in a for mammographs* 2020 2.9.2 ## of medical physicist* 2014 145 of Transners* 2020 2.9.2 ## of surgeons* 2014 145 of Transners* 2020 2.9.2 ## of medical physician* 2019 10 of PET or PET/CT scanners* 2020 0.0 ## of nuclear medicine physician* 2019 (of PET or PET/CT scanners* 2020 0.0 ## of medical & pathology lab scientists* 2014 1075 **CORMULATING RESPONSE*** **CORMULATING RESPONSE*** **CORMULATING RESPONSE*** **CORMULATING RESPONSE*** **CORMULATING RESPONSE*** **CORMULATING RESPONSE*** **Total pathology lab scientists* 2019	of external beam radiotherapy	2019	0.0		2019	n/a
of CT scanners* 2020 29.2 # of radiologist* 2019 no fMRI scanners* 2020 0.0 # of nuclear medicine physician* 2019 of PCT or PET/CT scanners* 2020 0.0 # of medical & pathology lab scientists* 2014 1077 (or PCT/CT scanners* 2020 0.0 # of medical & pathology lab scientists* 2014 1077 (or PCT/CT scanners* 2020 0.0 # of medical & pathology lab scientists* 2014 1077 (or PCT/CT scanners* 2019 0.0 # of medical & pathology lab scientists* 2014 1077 (or PCT/CT scanners* 2019 0.0 # of medical & pathology lab scientists* 2014 1077 (or PCT/CT scanners* 2019 0.0 # of medical & pathology lab scientists* 2019 0.0 # of medical & pathology lab scientists* 2019 0.0 # operational 1070 (or potational 2019 0.0 # operational 2018 1 Pathology services 2019 generally available ancer management guidelines 2019 1 Pathology services 2019 generally available ancer management guidelines 2019 1 Pathology services 2019 generally available ancer management guidelines 2019 2019 2019 2019 2019 2019 2019 2019	photon,electron) ^a	2013	0.0	# of medical physicist ^a	2019	n/
of MRI scanners* 2020 0.0 # of nuclear medicine physician* 2019 (of PET or PET/CT scanners* 2020 0.0 # of medical & pathology lab scientists* 2014 1078 **CORMULATING RESPONSE** **Topic finduling cancer types** **Topic finduling cancer types*	of mammographs ^a	2020	29.2	# of surgeons ^a	2014	145.
FORMULATING RESPONSE Integrated NCD plan 2019 operational 2019 perational 2019 pathology services 2019 generally availated cancer included in their operational, ancer management guidelines 2019 no 2019 palliative care availability: 2019 community/home-based care 2019 perational 2019 no 2019 palliative care availability: 2019 perational 2019 no 2019 palliative care availability: 2019 perational 2	of CT scanners ^a	2020	29.2	# of radiologist ^a	2019	n/
regrated NCD plan 2019 operational patients ACCP (including cancer types) 2019 operational Early detection programme/ guidelines for 4 cancers (prests), eviv., colon, childhood) 2019 apatients 2019 operational Early detection programme/ guidelines for 4 cancers (prests), eviv., colon, childhood) 2019 apatients	f of MRI scanners ^a	2020	0.0	# of nuclear medicine physician ^a	2019	0.
ntegrated NCD plan 2019 operational 2019 perational patients 2019 perational 2019 operational 2019 operation	of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2014	1078.
patients 2019 operational patients 2019 operational patients 2019 operational patients 2019 operational CCCP (including cancer types) 2019 operational Early detection programme/guidelines for 4 cancers (breast, cervix, colon, childhood) 2019 O cancer 4 cancers (breast, cervix, colon, childhood) 2019 operational 2018 1 Pathology services 2019 generally available ancer management guidelines 2019 Bone marrow transplantation capacity 2019 alliative care included in their operational, 2019 no Palliative care availability: community/home-based care 2019 generally available tragers (breast, cervix, colon, childhood) 2019 community/home-based care 2019 generally available tragers (breast, cervix, colon, childhood) 2019 generally available tragers (breast, cervix, colon, childhood 2019 generally available tragers (breast, cervix (breast, cervix (breast, cervix (breast, cervix (breast, cervix (br	ORMULATING RESPONSE					
ACCUP (Including cancer types) 2019 operational 4 cancers (breast, cervix, colon, childhood) 2019 Defined referral system 2019 generally availat 4 cancers (breast, cervix, colon, childhood) 2019 generally availat 2019 Bone marrow transplantation capacity 2019 Bone marrow transplantation capacity 2019 Pallitative care included in their operational, 2019 no 2019 Pallitative care availability: 2019 community/home-based care 2019 generally availat 2015 community/home-based care 2016 generally availat 2017 community/home-based care 2018 deviation for for pain management 2015 control of treatment services (surgery, 2016 adaily dozes for statistical purposes (\$0,000) per million inhabitants per day 2019 no 2019 no 2019 no 2019 inhabitants for Childhood Cancer 2019 no 2019 and cancer cases (0-14 years old) 2020 community/home-based care 2019 no 2019 and cancer cases (0-14 years old) 2020 community/home-based care 2019 no 2019 and cancer cases (0-14 years old) 2020 community/home-based care 2019 no 2019 and cancer cases (0-14 years old) 2020 community/home-based care 2019 no 2020 community/home-based care 2020 community/home-ba	ntegrated NCD plan	2019	operational	• • •	2019	-
chieved 2019 Pathology services 2019 Bone marrow transplantation capacity 2019 Palliative care included in their operational, 2019 no Palliative care availability: 2019 Palliative for pain 2015-2017 Palliative for pain 2015-2017 Palliative for pain 2015-2017 Palliative for care availability: 2019 Palliative for Childhood Cancer availability: 2019	NCCP (including cancer types)	2019	operational		2019	0 cancer(s
palliative care included in their operational, netgrated NCD plan Palliative care included in their operational, netgrated NCD plan Palliative care availability: community/home-based care 2019 generally availated community/home-based care 2019 generally availated community/home-based care 2019 generally availated community/home-based care 2015-2017 Availability of opioids* for pain management 2015-2017 Polifined doily doses for statistical purposes (\$-000) per million inhabitionis per day 2019 get, target population GLOBAL INITIATIVES Global Initiative for Childhood Cancer 1970 vaccination programme coverage 2018 n/a Annual cancer cases (0-14 years old) 2020 Particle of the community of		2018	1	Pathology services	2019	generally availabl
Annual cancer cases (0-14 years old) Treesing programme wethod Treesing programme type Treesing program type Treesing p	ancer management guidelines	2019		Bone marrow transplantation capacity	2019	
Availability of opioids* for pain ananagement 2015-2017 mananagement 2019 no *Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day reast cancer screening program: Starting ge, target population GLOBAL INITIATIVES		2019	no	•	2019	generally availabl
SICOBAL INITIATIVES SIGNAL INITIATIVES SIGNA	of treatment services (surgery, adiotherapy, chemotherapy)	2019	1		2015-2017	
ge, target population Application of Cervical Cancer Global Initiative for Childhood Cancer IPV vaccination programme coverage 2018 n/a Annual cancer cases (0-14 years old) 2020 creening programme type 2019 n/a Creening programme method 2019 n/a Annual cancer cases (0-14 years old) 2019 creening programme method 2019 n/a Annual cancer cases (0-14 years old) Annual cancer cases (0-14 years old) Edined referral system 2019 Acute lymphoid leukaemic method referral system 2019 Acute lymphoma Burkitt lymphoma Burkitt lymphoma Burkitt lymphoma Wilms tumour	reast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per million inhabitants per day		
Climination of Cervical Cancer IPV vaccination programme coverage 2018 n/a Annual cancer cases (0-14 years old) 2020 Defined referral system 2019 n/a Annual cancer cases (0-14 years old) 2019 creening programme type 2019 n/a Defined referral system 2019 Annual cancer cases (0-14 years old) Annual cancer cases (0-14 years old) arrly detection programme/guidelines 2019 n/a Annual cancer cases (0-14 years old) Annual cancer cases (0-14 years old) Annual cancer cases (0-14 years old) Acute lymphoid leukaemic lefined referral system 2019 Acute lymphoma Burkitt lymphoma Burkitt lymphoma Burkitt lymphoma Retinoblastoma Wilms tumour		2019	n/a			
IPV vaccination programme coverage 2018 n/a Annual cancer cases (0-14 years old) 2020 Early detection programme/guidelines 2019 n/a Defined referral system 2019 Annual cancer cases (0-14 years old) 2019 Annual cancer cases (0-14 years old) CNS, low grade tumours Retinoblastoma Wilms tumour	GLOBAL INITIATIVES					
creening programme type 2019 n/a Defined referral system 2019 Annual cancer cases (0-14 years old) arrly detection programme/guidelines 2019 Annual cancer cases (0-14 years old) Acute lymphoid leukaemis arrly detection programme/guidelines 2019 Acute lymphoid leukaemis arrly detection programme/guidelines 2019 Acute lymphoid leukaemis arrly detection programme/guidelines 2019 Acute lymphoid leukaemis arrly detection programme/guidelines arrly detection programme/guidelines 2019 Acute lymphoma arrly detection programme/guidelines arrly	limination of Cervical Cancer			Global Initiative for Childhood Cancer		
creening programme type 2019 n/a Defined referral system 2019 Annual cancer cases (0-14 years old) Annual cancer cases (0-14 years old) Accute lymphoid leukaemis Defined referral system 2019 Annual cancer cases (0-14 years old) Annual cancer cases (0-14 years old) Accute lymphoid leukaemis Defined referral system 2019 Accute lymphoid leukaemis Defined referral system Accute lymphoma Burkitt lymphoma CNS, low grade tumours Retinoblastoma Wilms tumour	IPV vaccination programme coverage	2018	n/a	Annual cancer cases (0-14 years old)	2020	1
creening programme method 2019 n/a Annual cancer cases (0-14 years old) arly detection programme/guidelines 2019 no Acute lymphoid leukaemis defined referral system 2019 7 CNS, low grade tumours Retinoblastoma Wilms tumour	ervical cancer screening	2019	no	Early detection programme/guidelines	2019	
Annual cancer cases (0-14 years old) Acute lymphoid leukaemis Acute lymphoid leukaemis Burkitt lymphoma CNS, low grade tumours Retinoblastoma Wilms tumour	creening programme type	2019	n/a	Defined referral system	2019	
arly detection programme/guidelines 2019 no Acute lymphoid leukaemic all Hodgkin lymphoma Burkitt lymphoma CNS, low grade tumours Retinoblastoma Wilms tumour	creening programme method	2019	n/a			
Pefined referral system 2019 Hodgkin lymphoma Burkitt lymphoma CNS, low grade tumours Retinoblastoma Wilms tumour	creening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Defined referral system 2019 Burkitt lymphoma CNS, low grade tumours Retinoblastoma Wilms tumour	Early detection programme/guidelines	2019	no		■ Acute l	ymphoid leukaemia
T CNS, low grade tumours Retinoblastoma Wilms tumour	Defined referral system	2019		3	■ Hodgki	n lymphoma
Retinoblastoma Wilms tumour					■ Burkitt	lymphoma
Retinoblastoma Wilms tumour				7	CNS, lo	w grade tumours
■ Wilms tumour					■ Retino	blastoma
					■ Wilms	tumour
					■ Other	childhood cancer

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



BURDEN OF CANCER



29,161,922

Total # cancer cases (2018)
13,182

Total # cancer deaths (2018)
9,085

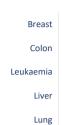
Premature deaths from NCDs (2016)

46,897

Cancer as % of NCD premature deaths (2016)

13.4%

Most common cancer cases (2018)



Non-Hodgkin lymphoma

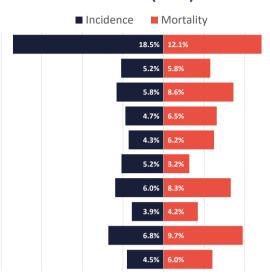
0.3%

Oesophagus

Rectum

Stomach

Brain, CNS



PAFs

(population attributable fractions)

Tobacco (2017)^a

^a PAF, cancer deaths

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

16.3%

oir, Aconor

^b PAF, cancer cases

Alcohol (2016)^a Infection

Infections (2012)^b Obesity (2012)^b

13.4%

^c PAF, melanoma cases

ty (2012)^b UV (2012)^c

32.8%

Occupational risk (2017)^a

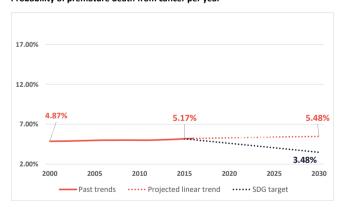
1.4%

TRENDS

4,935 4,000 4,000 3,000 2,445 1,000 Breast cancer Lung cancer

Probability of premature death from cancer per year

2.5%

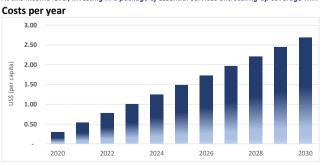


INVESTMENT CASE (2019)

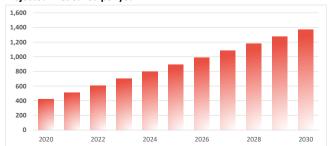
*Low income

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

■2012 ■2018 ■2040



Projected lives saved per year



Other childhood cancer

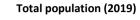


^a per 10,000 cancer patients Availability of population-based cancer	2019	No information	WORKFORCE		
registry (PBCR)**	2019	No information	° per 10,000 cancer patients Available staff in Ministry of Health who		
Quality of mortality registration***	2007-2016	No coverage	dedicates significant proportion of their time to cancer	2019	n/a
# of external beam radiotherapy	2019	0.8	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2015		# of medical physicist ^a	2019	4.6
# of mammographs ^a	2020	17.4	# of surgeons ^a	2014	78.9
# of CT scanners ^a	2020	66.8	# of radiologist ^a	2019	207.1
# of MRI scanners ^a	2020	23.5	# of nuclear medicine physician ^a	2019	4.6
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2010	844.3
FORMULATING RESPONSE					
Integrated NCD plan	2019	n/a	# Public cancer centres per 10,000 cancer patients	2019	0.8
NCCP (including cancer types)	2019	n/a	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	1	Pathology services	2019	generally available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	n/a	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	1	Availability of opioids* for pain management	2015-2017	0
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per mi	liion 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	1739
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	Annual concer coses (0.14 years old)		
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no			
			345	■ Acute	lymphoid leukaemia
Defined referral system	2019	no	343	■ Hodgk	kin lymphoma
			117	■ Burkit	t lymphoma
			962	CNS, I	ow grade tumours
			86	■ Retino	oblastoma
			92 87	■ 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

SOUTH AFRICA

BURDEN OF CANCER



58,558,267

Total # cancer cases (2018)

107,467

Total # cancer deaths (2018) 57,373

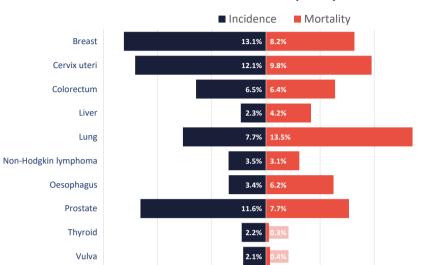
Premature deaths from NCDs (2016)

133,675

Cancer as % of NCD premature deaths (2016)

23.3%

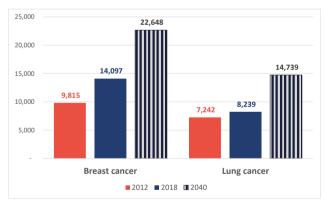
Most common cancer cases (2018)



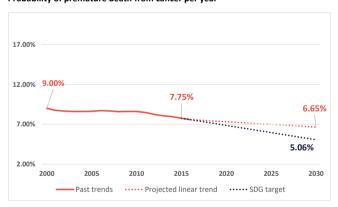


TRENDS

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



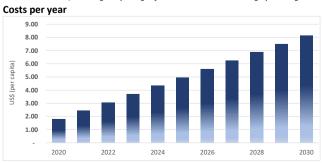
Probability of premature death from cancer per year

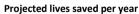


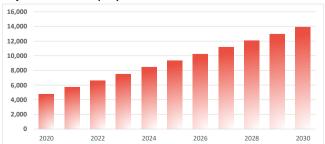
INVESTMENT CASE (2019)

*Upper middle income

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







■ CNS, low grade tumours

Other childhood cancer

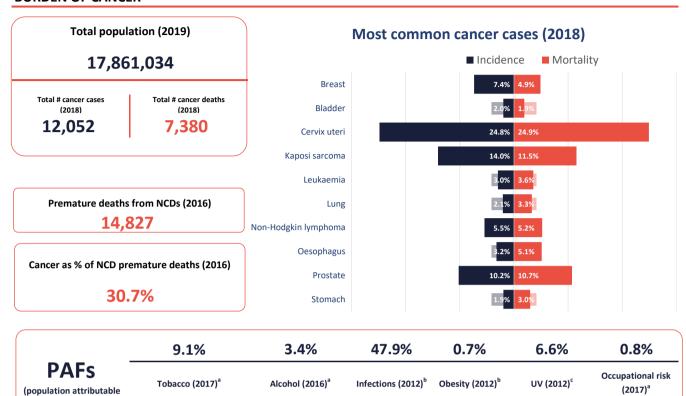
RetinoblastomaWilms tumour

SOUTH AFRICA

^a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	High quality PBCR	WORKFORCE		
, (. 20.1)			^e 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	2019	9.0	# of radiation oncologist ^a	2019	n/a
(photon, electron) ^a			# of medical physicist ^a	2019	17.2
# of mammographs ^a	2020	27.1	# of surgeons ^a	2014	321.3
# of CT scanners ^a	2020	28.6	# of radiologist ^a	2019	60.5
# of MRI scanners ^a	2020	14.3	# of nuclear medicine physician ^a	2019	6.0
# of PET or PET/CT scanners ^a	2020	1.3	# of medical & pathology lab scientists ^a	2015	13.9
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	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	don't know
Palliative care included in their operational, integrated NCD plan	2019	yes	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	475
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			Global Initiative for Childhood Cancer		
HPV vaccination programme coverage	2018	57.4	Annual cancer cases (0-14 years old)	2020	1688
Cervical cancer screening	2019	yes	Early detection programme/guidelines	2019	no
Screening programme type	2019	opportunistic	Defined referral system	2019	no
Screening programme method	2019	PAP smear	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	>50% and <70%	Ailitidal Califer Cases (0-14 years old)		
Early detection programme/guidelines	2019	yes			
Defined referral customs	2010		273	■ Acute	lymphoid leukaemia
Defined referral system	2019	yes		■ Hodgk	rin lymphoma
			67	■ Burkit	t lymphoma

ZAMBIA

BURDEN OF CANCER



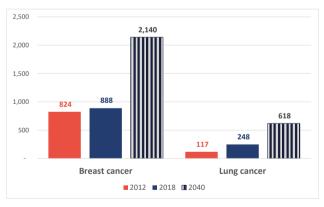
^b PAF, cancer cases

TRENDS

fractions)

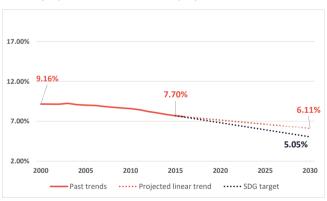
Estimated past and future trends in total cases per year (breast and lung)

^a PAF, cancer deaths



Probability of premature death from cancer per year

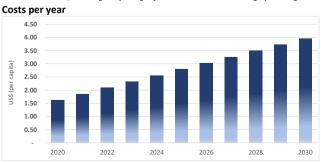
^c PAF, melanoma cases

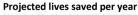


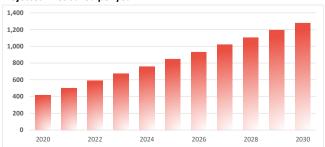
INVESTMENT CASE (2019)



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







■ Wilms tumour

Other childhood cancer



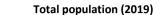
a per 10,000 cancer patients					
Availability of population-based cancer registry (PBCR)**	2019	PBCR	WORKFORCE * per 10,000 cancer patients		
Quality of mortality registration***	2007-2016	No coverage	Available staff in Ministry of Health who dedicates significant proportion of their	2019	yes
# of cytownal beam radiatheren.			time to cancer # of radiation oncologist ^a	2019	n/a
# of external beam radiotherapy (photon,electron) ^a	2019	2.5	# of medical physicist ^a	2019	5.0
# of mammographs ^a	2020	13.3	# of surgeons ^a	2012	80.5
# of CT scanners ^a	2020	16.6	# of radiologist ^a	2019	8.3
# of MRI scanners ^a	2020	0.8	# of nuclear medicine physician ^a	2019	2.5
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2016	764.2
FORMULATING RESPONSE					
Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	0.8
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	3 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	yes	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally not available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	20
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	45			
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	1087
Cervical cancer screening	2019	no	Early detection programme/guidelines	2019	yes
Screening programme type	2019	n/a	Defined referral system	2019	yes
Screening programme method	2019	n/a	Annual cancer cases (0-14 years old)		
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	yes		■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	yes 137 ■ Hodgkin I		kin lymphoma
			61		t lymphoma
			32	■ CNS, I	ow grade tumours
			694 76	■ Retino	oblastoma

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

■ Mortality

ZIMBABWE

BURDEN OF CANCER



14,645,473

Total # cancer cases (2018)

17,465

Total # cancer deaths (2018)
12,217

Premature deaths from NCDs (2016)

16,126

Cancer as % of NCD premature deaths (2016)

32.1%

Most common cancer cases (2018)

■ Incidence



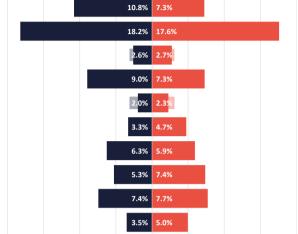
Leukaemia

Liver

Non-Hodgkin lymphoma

Oesophagus

Prostate Stomach



PAFs

(population attributable fractions)

Tobacco (2017)^a

14.1%

Alcohol (2016)^a

^b PAF, cancer cases

2.7%

Infections (2012)^b

45.5%

^c PAF, melanoma cases

2.2%Obesity (2012)^b

49.3%

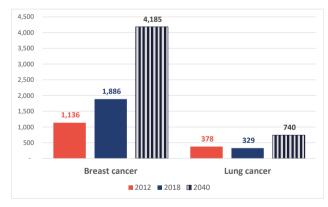
0.7%

UV (2012)^c Occupational risk (2017)^a

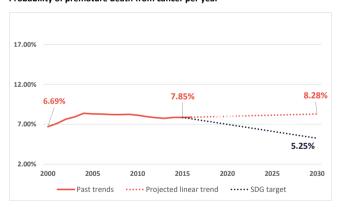
TRENDS

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

^a PAF, cancer deaths



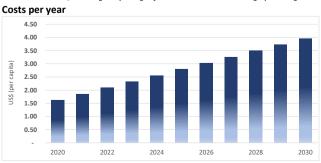
Probability of premature death from cancer per year



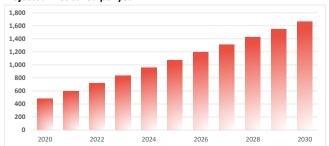
INVESTMENT CASE (2019)

*Lower middle income

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



Projected lives saved per year



■ Wilms tumour

Other childhood cancer

ZIMBABWE

^a per 10,000 cancer patients Availability of population-based cancer	2019	High quality PBCR	WORKFORCE		
registry (PBCR)**	2019	ingii quality PDCK	oper 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	no
# of external beam radiotherapy	2019	4.0	# of radiation oncologist ^a	2019	n/a
(photon,electron) ^a	2019	4.0	# of medical physicist ^a	2019	2.9
# of mammographs ^a	2020	5.7	# of surgeons ^a	2014	45.8
# of CT scanners ^a	2020	11.5	# of radiologist ^a	2019	3.4
# of MRI scanners ^a	2020	2.3	# of nuclear medicine physician ^a	2019	1.1
# of PET or PET/CT scanners ^a	2020	0.0	# of medical & pathology lab scientists ^a	2014	203.3
FORMULATING RESPONSE					
Integrated NCD plan	2019	under development	# Public cancer centres per 10,000 cancer patients	2019	1.1
NCCP (including cancer types)	2019	operational	Early detection programme/ guidelines for 4 cancers (breast, cervix, colon, childhood)	2019	0 cancer(s)
MPOWER measures fully implemented and achieved	2018	0	Pathology services	2019	generally available
Cancer management guidelines	2019	no	Bone marrow transplantation capacity	2019	generally not available
Palliative care included in their operational, integrated NCD plan	2019	no	Palliative care availability: community/home-based care	2019	generally available
# of treatment services (surgery, radiotherapy, chemotherapy)	2019	3	Availability of opioids* for pain management	2015-2017	32
Breast cancer screening program	2019	no	*Defined daily doses for statistical purposes (S-DDD) per r	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	0	Annual cancer cases (0-14 years old)	2020	838
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	A		
Screening participation rates	2019	n/a	Annual cancer cases (0-14 years old)		
Early detection programme/guidelines	2019	no	100	■ Acute	lymphoid leukaemia
Defined referral system	2019	yes	es 106 ■ Hodgkin lym		kin lymphoma
			46		t lymphoma
			25	■ CNS, I	ow grade tumours
			536 58	■ Retino	oblastoma

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