

Program against cancer in Comoros

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Keywords: Cancer Program; Cancer Control; Prevention; Early Detection; Institutional Reinforcement; Diagnosis; Treatment; Low and Middle-Income Countries; Comoros.

Abstract: worldwide, one in eight deaths is because of cancer. Projections supported the GLOBOCAN 2012 estimates predict a substantive increase new cancer cases once a year by 2035 in developing countries if preventive measures are not wide applied. Per the planet Health Organization (WHO), several lives can be saved every year if countries created use of existing information and therefore the best cost-efficient ways to stop and treat cancer. Therefore, the aim of this study is to estimate a conditional budget against cancer in low and middle incomes countries, according the GNI-PPP, the cancer incidence and therefore the variety of population. Economically country classification is determinative with the Gross value (GNI), per capita, buying power parity (PPP), according the administrations of the International money (IMF), the planet Bank (WB) and therefore the Central intelligence (CIA).

Introduction: Worldwide, one in eight deaths is because of cancer. Cancer causes additional deaths than AIDS, T.B., and protozoal infection combined. Once countries are classified per economic development, cancer is that the leading reason behind death in developed countries and therefore the second leading reason behind death in developing countries. Rates of cancers common in Western countries can still rise in developing countries if preventive measures aren't wide applied. Projections supported the GLOBOCAN 2012 estimates predict a substantive increase to nineteen.3 million new cancer cases annually by 2025, because of growth and ageing of the worldwide population. Incidence has been increasing in most regions of the planet, however there are immense inequalities between made and poor countries. Over half all cancers (56.8%) and cancer deaths (64.9%) in 2012 occurred in less developed regions of the planet, and these proportions can increase more by 2025. By 2030, the worldwide burden is anticipated to grow to twenty one.4 million new cancer cases and thirteen.2 million cancer deaths. Rates of cancers can still rise by 2035 with twenty three, 980,858 new cancer cases.

In addition to the human toll of cancer, the money value of cancer is substantial. Cancer has the foremost devastating economic impact of any reason behind death within the world. Information limitations don't permit estimating the worldwide economic prices of cancer. However, parts of the entire prices of cancer are calculable to be as high as \$895 billion (US) worldwide. It's calculable that over half all cancer cases and deaths worldwide are probably preventable. Rates of cancers can still rise to 876 new cancer cases by 2035 with 678 deaths if preventive measures aren't wide applied. Policies and social control tips, several lives can be saved every year if countries created use of existing information and therefore the best cost-efficient ways to stop and treat cancer. "It is important to bring morbidity and mortality in line with progress created in recent years in additional developed components of the planet."

Methods: Economically Country Classification: The social science states are established among the means that of GNI-PPP according the administrations of the International money (IMF); the planet Bank (WB) and therefore the Central intelligence (CIA).

PPP is buying power parity; a world greenback has an equivalent buying power over GNI as a U.S. greenback has within the US.

Population: Standard population (POPst) is deciding to African nation population (Western Africa) with fourteen, 668,522 persons. Comoros population is calculable to 808,080 persons. Population compares estimates

from the US Bureau of the Census supported statistics from population censuses, statistic registration systems, or sample surveys referring to the recent past and on assumptions regarding future trends

Provisional Budget (thousands of U.S \$): The World Health Organization (WHO) emphasizes that, once developing national ways for dominant cancer, countries ought to think about the subsequent four broad approaches supported their economic development:

- July 14, 2020The primary hindrance
- July 14, 2020The early detection and secondary hindrance
- July 14, 2020The diagnosing and treatment
- July 14, 2020The palliative care.

The tentative budget is establishing among the rules developed by WHO for regional and national cancer management programs in line with national economic development. However, a global energy Agency report advised that in developing countries a minimum of Hr of cancer patients need radiation treatment.

In High Incomes Countries, the attention prices is the maximum amount as eight.4% (UK in 2007) to eighteen (USA in 2009) of a country's gross domestic product. Cancer consumes regarding 5-10% of the world attention budget, of that therapy solely consumes regarding five-hitter; thus, over five hundredth of cancer patients requiring therapy in low and middle-income countries lack access to treatment. A benchmark of between four hundred and five hundred patients per treatment unit annually has been wont to calculate machine output in many reports. But, the vary of desires presently lined varies from 1/3 and 3-4% in Low Incomes Countries in geographic area and continent up to 59-79% in Up-Middle Incomes Countries in Europe-Central and Asia .

Standardized rapport (R0) : Standardized rapport (R0), among the GNI-PPP, CI and therefore the variety of the population, is calculated. Standardization simplifies comparisons of GNI-PPP and cancer incidence rates among populations.

$$R0 = \frac{GNI-PPP \times CI / POP}{GNI-PPPst \times CIst / POPst}$$

Note:

* For Radiotherapy equipment, $R0 = GNI-PPP \times POP / GNI-PPPst \times 3$ million peoples;

Senegal has installed two new radiotherapy machines in 2017. Radiotherapy equipment is estimated to US\$ 2,500,000.

** For Prevention and screening infrastructure, $R0 = GNI-PPP \times POP / GNI-PPPst \times 3$ million peoples.

R_0 = Standardized rapport among the GNI-PPP, CI and the number of the population

GNI-PPPst = Standard Gross National Income Per capita Purchasing Power Parity in Senegal

GNI-PPP = Gross National Income Per capita Purchasing Power Parity of interest

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CIst= Standard Cancer Incidence in Senegal

CI= Cancer Incidence of interest

POPst= Standard Population in Senegal

POP= Population of interest

Results:

Country	GNI per capita Purchasing power parity (PPP)				Population	Cancer incidence (CI)
	Ref.	US\$	Year	Means of GNI-PPP (US\$)		
Comoros	IMF	1,521	2016	1,520	8,080	481
	WB	1,540	2016			
	CIA	1,500	2016			

Table 1: GNI-PPP, Cancer incidence (CI) and the number of the Population

Cancer Control	Management	Stand. budget (S ₀)	Stand.rapport (R ₀)	Account per (R ₀)	General POP. budget
Cancer primary	Development of an information system	50	0.62223	31.111	15.643
	Against Tobacco	250	0.62223	155.557	78.216
	Against Infections	500	0.62223	311.115	156.432
	Against carcinogenic substances	125	0.62223	77.778	39.108
Prevention	Against environmental risks	125	0.62223	0.62223	0.62223
	Diet or nutrition promotion	250	0.62223	0.62223	0.62223
	Sport promotion	200	0.62223	0.62223	0.62223
	Cancer risk factors survey	50	0.62223	0.62223	0.62223
Cancer early detection and secondary prevention.	Breast cancer screening	150	0.62223	0.62223	0.62223
	Cervical cancer screening	125	0.62223	0.62223	0.62223
	Prostate cancer screening	50	0.62223	0.62223	0.62223
	Colorectal cancer screening	50	0.62223	0.62223	0.62223
	Others cancers screening	50	0.62223	0.62223	0.62223
Cancer institutional reinforcement	Rise of cancer professional	125	0.62223	0.62223	0.62223
	Development of cancer research	175	0.62223	0.62223	0.62223
	Development of cancer prevention courses	100	0.62223	0.62223	0.62223
Cancer diagnosis and treatment	Assistance for Palliative Care	150	0.62223	0.62223	0.62223
	Chemotherapy equipment	100	0.62223	0.62223	0.62223
	Surgical equipment	175	0.62223	0.62223	0.62223
	Radiotherapy equipment *	2,500	1.00	1.00	1.00
	Prevention and screening infrastructure **	400	0.59584	0.59584	0.59584
Total		5,700			3,614.356

Based on: World Health Organization. The National Cancer Control Programmes: policies and managerial guidelines. 2nd ed. Geneva, 2002.

S₀= Standard budget for 5 years for a population of 1,000,000 persons; R₀= Standardized rapport among the GNI-PPP, CI and the number of the population; * With the weak number of population and the low income; 1 radiotherapy machine is considered.

** Prevention and screening infrastructure among only GNI-PPP /GNI-PPPst.

Conclusion: Cancer has the foremost devastating economic impact of any reason behind death within the world. Incidence has been increasing in most regions of the planet, however there area unit vast inequalities between wealthy and poor countries. Projections supported the GLOBOCAN 2012 estimates predict a substantive increase to millions new cancer cases p.a. by 2030.