

## Program against cancer in Congo, Democratic republic

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**Keywords:** Cancer Program; Cancer Control; Prevention; Early Detection; Institutional Reinforcement; Diagnosis; Treatment; Low and Middle-Income Countries; Congo, Democratic Republic.

### Abstract

Worldwide, one in eight deaths is due to cancer. Projections supported the GLOBOCAN 2012 estimates predict a substantive increase new cancer cases every year by 2035 in developing countries if preventive measures are not wide applied. Consistent with the planet Health Organization (WHO), a lot of lives may be saved annually if countries created use of existing information and also the best cost-efficient strategies to stop and treat cancer. Therefore, the aim of this study is to estimate a tentative budget against cancer in low and middle incomes countries, according the GNI-PPP, the cancer incidence and also the range of population. Economically country classification is decisive with the Gross value (GNI), per capita, buying power parity (PPP), according the administrations of the International money (IMF), the planet Bank (WB) and also the Central intelligence (CIA). Cancer incidence information bestowed are supported the foremost recent information obtainable at IARC. However, population compares estimates from the U.S. Bureau of the Census. The tentative budget is establishing among the foundations developed by United Nations agency for regional and national cancer management programs according to national economic development. Tentative budget against cancer is calculable to eighty six, 980.024 (thousands of U.S \$) for a population of eighty three, 301,151 persons in Congo, Democratic Republic.

**1. Introduction:** Worldwide, one in eight deaths is due to cancer. Cancer causes a lot of deaths than AIDS, TB, and protozoal infection combined. Once countries are sorted according to economic development, cancer is that the leading clarification for death in developed countries and thus the second leading clarification for death in developing countries. Rates of cancers common in Western countries can still rise in developing countries if preventive measures are not wide applied. Projections supported the GLOBOCAN 2012 estimates predict a substantive increase to nineteen.3 million new cancer cases every year by 2025, due to growth and ageing of the worldwide population. Incidence has been increasing in most regions of the world.

### 2. Methods

**2.1. Economically Country Classification:** The social science states are established among the suggestion that of GNI-PPP according the administrations of the International money (IMF); the planet Bank (WB) and also the Central intelligence (CIA). The distinction regarding the same country is typically goodish among the information origin.

**2.2. Gross value (GNI), Per Capita, buying Power Parity (PPP):** Gross national product is gross domestic product (GDP) and earnings (employee compensation and investment income) from abroad. GNI, per capita is GNI divided by mid-year population.

PPP is buying power parity; a world dollar has the same buying power over GNI as a U.S. dollar has within the U.S. Surgical process exchange rates are wont to account for the native costs of products and services unlisted internationally.

**2.3. Cancer Incidence:** Incidence is that the variety of latest cases that happens throughout a given amount of your time during a such that population. It is usually expressed as AN absolute variety of cases each year or as a rate per one hundred persons each year. The speed provides AN approximation of the standard risk of developing a cancer. Cancer incidence information conferred are supported the foremost recent information obtainable at IARC. GLOBOCAN 2012 provides a worldwide profile of cancer that has been developed using variety of ways that are obsessed to the availability and so the accuracy of the data. National sources are used wherever doable, with native information and applied math modeling used in their absence.

**2.4. Population:** Standard population (POPst) is deciding to Senegal population (Western Africa) with 14, 668,522 persons. Congo, Democratic Republic population is calculable to 38,301,151 persons. Population estimates for this country expressly take into account the results of excess mortality because of AIDS; this can finish in lower anticipation, higher infant mortality, higher death rates, lower increase rates, and changes among the distribution of population by age and sex than would preferably be expected. Population compares estimates from the United States of America Bureau of the Census supported statistics from population censuses, statistic registration systems, or sample surveys concerning the recent past and on assumptions regarding future trends.

**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.

$$\text{GNI-PPPXCi/POP}$$

R0=

$$\text{GNI-PPPstXCist /POPst}$$

Note:

\* For Radiotherapy equipment,  $R0 = \text{GNI-PPP} \times \text{POP} / \text{GNI-PPPst} \times 3$  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,  $R0 = \text{GNI-PPP} \times \text{POP} / \text{GNI-PPPst} \times 3$  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

Cist= Standard Cancer Incidence in Senegal

CI= Cancer Incidence of interest

POPst= Standard Population in Senegal

POP= Population of interest

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Results:

Country	GNI per capita Purchasing power parity (PPP)				Population	Cancer incidence (CI)
	Ref.	US\$	Year	Means of GNI-PPP (US\$)		
Congo, Dem. Rep.	IMF	791	2016	794	83,301,151	40,496
	WB	790	2016			
	CIA	800	2016			

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

Cancer Control	Management	Stand. budget (S0)	Stand.rapport (R0)	Account per (R0)	General POP. budget
Cancer primary	Development of an information system	50	0.26546	13.273	1,105.656
	Against Tobacco	250	0.26546	66.365	5,528.280
	Against Infections	500	0.26546	132.73	11,056.561
	Against carcinogenic substances	125	0.26546	33.182	2,764.140
Prevention	Against environmental risks	125	0.26546	33.182	2,764.140
	Diet or nutrition promotion	250	0.26546	66.365	5,528.280
	Sport promotion	200	0.26546	53.092	4,422.624
	Cancer risk factors survey	50	0.26546	13.273	1,105.656
Cancer early detection and secondary prevention.	Breast cancer screening	150	0.26546	39.819	3,316.968
	Cervical cancer screening	125	0.26546	33.182	2,764.140
	Prostate cancer screening	50	0.26546	13.273	1,105.656
	Colorectal cancer screening	50	0.26546	13.273	1,105.656
	Others cancers screening	50	0.26546	13.273	1,105.656
Cancer institutional reinforcement	Rise of cancer professional	125	0.26546	33.182	2,764.140
	Development of cancer research	175	0.26546	46.455	3,869.796
	Development of cancer prevention courses	100	0.26546	26.546	2,211.312
Cancer diagnosis and treatment	Assistance for Palliative Care	150	0.26546	39.819	3,316.968
	Chemotherapy equipment	100	0.26546	26.546	2,211.312
	Surgical equipment	175	0.26546	46.455	3,869.796
	Radiotherapy equipment *	2,500	8.64251	21,606.27	21,,606.27
	Prevention and screening infrastructure **	400	8.64251	3,457.004	3,457.004
<b>Total</b>		<b>5,700</b>			<b>86,980.024</b>

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; \* Radiotherapy equipment among only GNI-PPP /GNI-PPPst for each 3 million peoples; \*\* Prevention and screening infrastructure among only GNI-PPP /GNI-PPPst, for each 3 million peoples.

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