



## Original Article

## Role of the National Cancer Control Program in Developing Healthy Policies and Creating Supportive Environments for Cancer Prevention in Cameroon (2004-2019)

*Rôle du Programme National de Lutte contre le Cancer dans l'élaboration de politiques saines et la création d'environnements favorables à la prévention du cancer au Cameroun (2004-2019)*

Suh Nchang Abenwie<sup>1,3</sup>, Mossus T<sup>1</sup>, Atenguena E<sup>1</sup>, Edo'o D V<sup>1,3</sup>, Jim Nemy H<sup>1,3</sup>, Ndom P<sup>2,4</sup>, Essi MJ<sup>1,3</sup>

### RÉSUMÉ

**Objectif.** Evaluer les activités du Programme National de Lutte contre le Cancer (PNLCA), en rapport avec l'élaboration de politiques saines et la création d'environnements favorables à la prévention et à la lutte contre la maladie au Cameroun. **Population et méthodes.** Une analyse des politiques de lutte contre le cancer mises en place de 2004 à 2019 a été menée au PNLCA, par l'approche d'évaluation qualitative mixte conformément à la Charte d'Ottawa de la promotion de la santé. **Résultats** Des politiques saines de lutte contre le cancer existent au Cameroun, mais leur mise en œuvre par le PNLCA est peu efficace. Aussi, le pays ne dispose ni d'une stratégie nationale de prévention du cancer intégrant des approches de promotion de la santé, ni de directives nationales coordonnées dans le cadre des Maladies Non Transmissibles (MNT) ou de plan de communication intégré sur les facteurs de risque modifiables de cancers et autres MNT. Toutefois, quelques activités importantes favorables à la prévention de la maladie ont été menées. Ainsi les activités de prévention sont axées sur le dépistage, sur l'évitement des facteurs de risque ou l'identification précoce des symptômes de la maladie. En outre, aucun plan de gestion précis reliant toute femme diagnostiquée avec des lésions précancéreuses à un traitement et un suivi rapide n'a été mis en place. **Conclusion.** Il est nécessaire de revoir d'inclure une stratégie efficace de prévention du cancer qui intègre les approches de promotion de la santé inscrites dans la charte d'Ottawa.

### ABSTRACT

**Objective.** This study evaluated the activities of the National Cancer Control Program (NCCP) in creating healthy policies and supportive environments for cancer prevention and control in Cameroon. **Population and Methods.** A health policy analysis was conducted at the NCCP, using a mixed qualitative evaluation approach. Cancer control policies and health promotion events of the NCCP from 2004 - 2019 were evaluated with reference to the Ottawa Charter of health promotion. **Results** Several healthy policies for cancer control exist in Cameroon, but NCCP doesn't contribute to the development and /or implementation of these policies. A few significant activities have been done by the NCCP in creating supportive environments for cancer prevention. However, Cameroon does not have an effective national strategy for cancer prevention that integrates health promotion approaches, with no coordinated national guidelines within the framework of Non communicable diseases (NCDs) and no Integrated Communication Plan on modifiable risk factors for cancers and other NCDs. As such preventive activities are focused on screening, with little or no awareness campaigns on risk factor avoidance (health enhancement and cessation education) or early identification of disease symptom, and with no clear management plan to link all women diagnosed with precancerous lesions to timely treatment and follow up. **Conclusion.** There is need to review policies of the NCCP in Cameroon, and to include an effective cancer prevention strategy which fully integrates health promotion approaches as enshrined in the Ottawa charter of health promotion.

1. Department of Public Health, Faculty of Medicine and Biomedical Sciences, University of Yaounde I.
2. Department of Internal Medicine, Faculty of Medicine and Biomedical Sciences, University of Yaounde I.
3. Research Laboratory on Medical Anthropology and Social Medicine, University of Yaounde I
4. National Cancer Control Program, Cameroon.

**Auteur correspondant :** Suh Nchang Abenwie

Adresse e-mail : [snabenwie@gmail.com](mailto:snabenwie@gmail.com)

**Mots-clés :** PNLCA, politiques saines, environnements favorables à la prévention du cancer, Cameroun.

**Keywords:** NCCP, healthy policies, supportive environments for cancer prevention, Cameroon

### INTRODUCTION

Cancer is a leading cause of death worldwide [1], and there is a continuous increase in its burden; from about 14.1 million new cancer cases and 8.2 million deaths in 2012, to about 18.1 million new cases and 9.6 million deaths in 2018 [1]. Notwithstanding, it is estimated that

there will be a linear rise in cancer incidence worldwide to about 24.1 million new cases in 2030, and 29.5 million in 2040 for both sexes and all ages, and with majority of deaths occurring in low- and middle-income countries (LMICs), where there is the least ability to meet the

challenge in terms of cancer services [1]. Currently 56% of new cases and 64% of cancer deaths occur in less-developed countries, and these figures are projected to rise in 20 years' time to 63% and 70% respectively [2]. In 2018, an estimated 752,000 new cancer cases (4% of the global total) and 506,000 cancer deaths occurred in sub-Saharan Africa [3]. Cameroon, like other less developed countries is experiencing a high cancer burden with a mortality rate of 66.7% (15,796 total cases and 10,533 deaths) as reported in the World Health Organization (WHO) country cancer profile 2018 [4]. However, at least one-third (30-50%) of new cases of cancer each year are preventable by minimizing exposure to known risk factors. A further one-third can be controlled by early detection and prompt treatment where resources allow, and the remaining more advanced cases are manageable by well-established comprehensive palliative care [5]. WHO promoted the development of NCCPs to reduce cancer incidence and mortality and improve the quality of life of cancer patients, through implementation of evidence-based, cost-effective and context-logical control strategies [5,6]. WHO also recommended that NCCPs should establish basis for prevention of cancer and other chronic diseases as priority actions in LMICs, where cancer services are limited. Health promotion usually involves activities aimed at empowering knowledge, promoting healthy behaviors, and creating healthy policies and supportive environments, to prevent risk exposure and impact in large segments of the population [7,8]. Since 2004, the NCCP in Cameroon has been implementing control strategies, however, its activities of in creating healthy policies and supportive environments for prevention of preventable cancers is not clearly documented. This study explored the activities of the NCCP in creating supportive environment for cancer prevention from 2004-2019, with reference to the Ottawa charter of health promotion, to identify available gaps for improvement.

**POPULATION AND METHODS**

A health policy analysis was conducted in Yaoundé-Cameroon, using a qualitative evaluation approach, guided by the CDCs Framework for Program Evaluation in Public Health (with focus on process evaluation) [9], from November 15, 2018 - June 30, 2019. Existing cancer control policies of the NCCP from 2004 - 2019 were analyzed and activities implemented in creating supportive environment for cancer prevention during this period were evaluated with reference to the action areas of the Ottawa Charter of health promotion [7]. Data was collected using document analysis, interviews, and observation for triangulation, to validate and corroborate evidence (Table 1)

**Table 1: Health policy documents /national Cancer strategic plans from 2004-2019.**

Collection Method	Data sources
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<b>Documentary research</b>	<p><i>NCCP Health policy documents/ strategic plans from 2004-2019.</i></p> <ol style="list-style-type: none"> <li>1. The Cameroon National Cancer Control Plan for 2003-2007 and 2006-2010 [10].</li> <li>2. The national strategic plan for cervical cancer control in Cameroon 2015-2020 [11].</li> <li>3. The draft strategic plan for national cancer control in Cameroon 2019-2024 [12].</li> </ol> <p><i>Public records, personal documents, and physical evidence at NCCP</i></p> <ol style="list-style-type: none"> <li>i. Terms of reference for program creation.</li> <li>ii. Original program proposal document.</li> <li>iii. Annual and quarterly reports on program activities.</li> <li>iv. Communications between Program and Partners (letters and memoranda).</li> <li>v. Basic program plan or 'logic chain'</li> <li>vi. All relevant files (records and data) of the NCCP including agendas, attendance registers, and minutes of meetings.</li> <li>vii. Events programs (printed outlines).</li> <li>viii. Organizational, conference or institutional reports (organised or attended by the program staff).</li> <li>ix. Mass media communication (newspapers, press releases, posters, etc.).</li> </ol> <p><b>Key Interviews</b></p> <p>3 Staff of the NCCP</p> <p><b>Observation</b></p> <p>Service meetings, Conferences, Trainings, and Strategic planning workshops.</p>
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**Procedure**

Data from documentary sources was collected using a reading grid, and a check list of criteria activities to create supportive environment was used to summarize the main ideas and supporting details covered in each document [13]. The document name, information obtained and analyzed content category were entered on a log form to keep track of information and sources. In a similar manner, an interview guide and an observation guide were used to guide the key informant interviews and observations, respectively. Interviews were tape recorded and later transcribed accordingly. The Observation date, venue, activity observe, information obtained and analyzed, and content category were entered on the template to keep track of information and sources. Data collection was done by trained research assistants to ensure accuracy. The documents analysis provided background and context of operation (objectives and direction); additional questions to be asked; supplementary data; served as means of tracking change and development within the program; verification of findings from the other data sources (interview and observation), and an effective means of gathering data when events could no

longer be observed or when informants had forgotten the details.

Key Informants were asked to provide documented evidence to back up unclear responses where possible. Direct observation in meetings, conferences, trainings, and strategic planning provided permitted us to cross check the data from document analysis and interview responses.

There was no direct manipulation of human subjects in this study. However, the analyses were conducted with respect of Mann’s theory on Public health, Ethics and Human rights, geared towards human well-being [14], since the results are intended to guide policy and decision making towards the improvement of the health status of the population. Furthermore, most of the information collected for the study was from unpublished material, documents, archives and works done by the NCCP. Therefore, authorization was obtained from the Permanent secretariat of the National Cancer Control Program in Cameroon to collect and use such information. Administrative and ethical authorization was also obtained from competent authorities and the institutional review board of the Faculty of Medicine and Biomedical Sciences of the University of Yaoundé I.

Retrospective data collected was analyzed using a content-analysis approach to organize the information into categories related to the central research question. After assembling data from the various sources, a thematic content analysis was manually conducted using a deductive approach in which the encoding was based on pre-established themes derived from the WHO Best

BUYS strategies and recommended actions for creating supportive environments by the Ottawa Charta of health promotion. The results were regrouped in sub-themes according to the activities implemented by the NCCP in developing healthy policies and creating supportive environments during the study period.

**RESULTS**

**Creating supportive environments for cancer prevention**

***I. Activities of the NCCP in building and implementing cancer prevention policies***

Several healthy policies exist in Cameroon to ensure supportive environment for populations towards the prevention of cancers and other NCDs, and commitments have been signed to accelerate their implementation, including WHO “Best Buys” policies [15] and the WHO’s Framework Convention on Tobacco Control (FCTC) [16, 17]. However, these policies are not adequately implemented, and the NCCP has not put forward any actions to advocate, recommend or contribute to the development and/or implementation of these policies. Policies for promoting physical activity do not align with WHO “Best Buys” and there are no national food policies in Cameroon to ensure healthy dieting in favor of cancer prevention. Furthermore, cancer specific prevention policies do not consider occupational exposure to Carcinogens, as well as HBV immunization for adult groups at risk (**Table 2**).

Table 2: Existing cancer control policies and their level of implementation in Cameroon

Preventable Risk factor	Policies	Implementation level
Tobacco use	❖ Tax increases	Tax increases on tobacco products,
	Smoke free indoor, workplaces, and public spaces	Formulation of policies and circulars to prevent tobacco use in few ministerial departments, and Creation of non-smoking spaces in workplaces
	Bans on tobacco advertising, promotion, and sponsorship	Ban on tobacco advertising, promotion, and sponsorship, and health marking.
Harmful Alcohol use	Health information and warning	
	Tax increase,	Tax increase,
	Bans on alcohol advertising	Restriction of alcohol advertisement, but not banning it. No regulations on sponsorship, sales promotion and supply, and labels on containers.
	Restricted access to retailed alcohol	30% implementation of the policy prohibiting sales, distribution, and consumption of alcohol, and sales around schools [164].
Physical inactivity and unhealthy diets	Public awareness through mass media on diet and physical activity	Promotion of exercise – or leisure-related physical activity in defined settings or during organized events
Infectious cancers	Prevention of liver cancer through HBV vaccination	Integration of Hep B vaccination in EPI but no immunization programmes for Adult groups at risk.
	Prevention of cervical cancer through screening (Visual inspection with acetic acid VIA) and linked with timely treatment of precancerous lesions	Organization of sporadic free cervical cancer screening campaigns but no coordinated plan to link all women with abnormal results to immediate treatment.

***II: Activities of the NCCP in creating supportive environments.***

A few of activities have been carried out by the NCCP in creating supportive environment for cancer prevention including integration of the Hepatitis B vaccination (HBV vaccination) into the routine expanded programme for immunization (EPI), vaccination campaigns for young girls against Human papilloma virus and sporadic cervical and breast cancer screenings campaigns on some special awareness days; but Cameroon does not have an effective national strategy in terms of cancer prevention and there are no coordinated national guidelines for cancer prevention, with no national cancer policy/ strategic

plan within the framework of NCDs, and no Integrated Communication Plan (ICP) on modifiable risk factors for cancers and other NCDs. In the same light, there is no coordinated management plan to permit all women diagnosed with precancerous conditions benefit from immediate treatment. Furthermore, the NCCP is not engaged in advocacy and enabling actions to create supportive environments, like collaborating with other sectors to develop environments that encourage healthy choices like infrastructure for physical activity, agriculture and commerce for availability and affordability of healthy foods, etc; and there are no health education and direct intervention programs such as counselling on risk avoidance and cessation services.

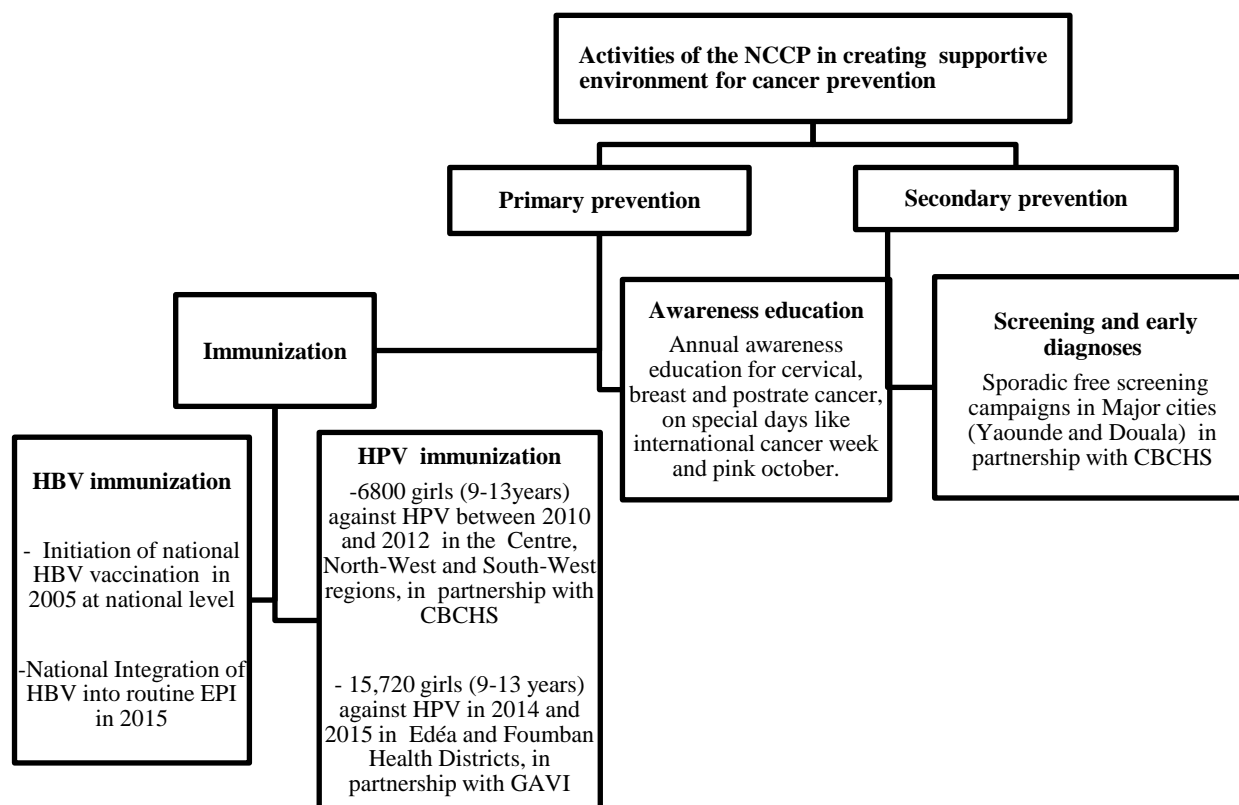


Figure I: Some activities of the NCCP in creating supportive environments for cancer prevention.

## DISCUSSION

### Gaps in creating supportive environments

Cancer control policies exist in Cameroon, but they are not adequately implemented and the NCCP does not contribute (advocate or recommend) to the development (building) and /or implementation of these policies. Furthermore, a few activities have been carried out by the NCCP in creating supportive environment, but there are no effective national strategies and coordinated guidelines for cancer prevention.

Findings of this study that existing cancer control policies are not adequately implemented in Cameroon and the NCCP does not contribute to policy development or implementation may be due to the absence of an effective national cancer prevention strategy which fully integrates health promotion approaches as recommended in the Ottawa Charter [18]. Since its inception in 2004,

prevention activities of the NCCP in Cameroon have been centered around cervical cancer, with no intentional attempts to contribute or influence the development and/or implementation of existing cancer policies. As in Cameroon, a few policies on environmental pollution control, tobacco and alcohol consumption have been formulated in Zimbabwe, but are not implemented [19]. In Suriname, the national NCD Action Plan 2012-2016 identified several priority actions to prevent and reduce the burden of chronic diseases and related risk factors, for the adoption of healthy and risk-free behaviors by the population, but this was not implemented [20].

Cameroon lacks an effective national cancer prevention strategy with coordinated guidelines. Existing national strategic plans for cancer control from 2004-2019 [10,11,12] didn't earmark a health promotion and prevention plan within the framework of NCDs, with no ICP on avoidance of modifiable risk factors (for cancers



and other NCDs. As such preventive activities were uncoordinated and focused on screening, with little or no awareness campaigns on health risk factor avoidance (health enhancement and cessation education) or early identification of disease symptom. Activities were limited within few communities in major towns (Yaoundé and Douala), and mostly on special awareness days such as “Pink october”, thereby leaving many uninformed Cameroonians to continue to expose themselves to the risk factors of cancers. Like Cameroon, Zimbabwe has no formulated national cancer prevention strategy nor any communication strategy, with no nationwide awareness programs to address causative agents and risk factors [19,21] and republic of Slovenia 2017-2021 have clear activity plans to reduce cancer incidence with specified objectives focused on health promotion, education, and community advocacy approaches [22,23]. The State in its sovereign tasks has the duty to inform and educate the population on the preventable risk factors of diseases.

Even though cervical cancer screening for early detection was a priority activity of the NCCP, there were no organized regular screening program for breast and cervical cancer, and a coordinated management plan to link women diagnosed with precancerous lesions to timely treatment. Contrary to the WHO's recommendation that screening programmes should be undertaken only when their effectiveness have been demonstrated, and resources ensured to cover diagnoses, treatment, and follow up of abnormal results [5], some women screened with precancerous condition in this study were unable to benefit from treatment either due to lack of treatment fees or unavailability of ready treatment facilities (equipment) In line with WHO guidelines, Nigeria's national cancer plan (2018-2022) has clearly outlined objectives for making screening services and early detection available to all Nigerians, with referral protocols for adequate treatment and follow up of abnormal results [24].

Cameroon implemented the pilot phase of introduction of the HPV vaccine for girls aged 9 to 13 years in 2015, in line with the WHO guidelines prevention [25], but this has not yet been integrated in the routine EPI. Contrary to Cameroon several African countries have successfully introduced the HPV vaccines nationally including Rwanda, Uganda, Tanzania, Zimbabwe, Ethiopia, Malawi, Zambia, and Kenya among others [26].

Vaccination against viral hepatitis B was integrated into the routine national EPI in Cameroon in 2015, but contrary to CDCs guidelines for HBV prevention in high-risk settings [27], there are no HBV immunization programmes for adults in high-risk groups and other exposed adults. Studies in Kenya equally revealed no hepatitis B vaccination programs for exposed adult, and only 48% of health care workers had completed vaccination (3 doses) [28].

In this study, most of the information from the documents review was inapplicable, disorganized, unavailable, or incomplete, given that the subject of the

evaluation was only one aspect of the NCCP activities and was not also considered a priority activity. Most documents used were still in the form of grey matter with no possibility to dig deeper. Considering the epidemiologic burden and the socio- economic context of Cameroon as a LMIC with limited resources, ability and services for cancer management, there is an urgent need for the NCCP to review cancer control policies and to develop an effective national strategy for cancer prevention which fully integrates health promotion approaches as adopted in the Ottawa Charter of health promotion.

## CONCLUSION

Few activities have been carried out by the NCCP in creating supportive environment for cancer prevention and control, but there are no effective national strategies and coordinated guidelines for cancer prevention, and the NCCP does not contribute to the development and /or implementation of most existing cancer control policies in Cameroon.

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