

The cancer epidemic in the Caribbean region: Further opportunities to reverse the disease trend



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Summary

Cancer incidence has been rising in the Caribbean and is expected to have significant adverse implications for the health of people in the region and health systems in this decade. While developed countries, for the most part, enjoy the benefits of advanced technologies and adaptive systems in cancer control and management, a different experience confronts a large segment of the Caribbean population. The region has experienced some success in enhancing cancer services, however, there is a need to address gaps in several areas through nationally and regionally tailored initiatives. This Review complements previous publications on the challenges, actions, and progress towards cancer prevention and care in Caribbean countries but also further outlines potential positive impacts that can be derived from addressing gaps pertaining to cancer education, data management, screening and risk assessment, navigation services, gender factors, and resource development. The proposed approaches encapsulate concepts of health theories that are applicable across the ecological domains. When implemented in combination, the proposals may effectively contribute to reducing the cancer burden in the region.

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Introduction

Cancer is one of the chronic diseases that have imposed significant burdens on population health and health management systems in the Caribbean. The Global Cancer Observatory (GLOBOCAN) 2020 report cited approximately 1,470,274 new cancer cases and 713,414 deaths in Latin American and Caribbean countries.¹ Cancer is the second leading cause of death in the Caribbean² and, failing interventions, the rate is projected to increase by 66% during this decade.³

Cancer is characterized by complex clinical manifestations, long-haul effects, and usually requires highly specialized and costly treatments. Over the years, there have been improvements in the quality of care, however, for the most part, these advancements have been limited to the high-income economies in the region. Spence *et al.* cited there is a need for collaborative partnerships by the regional countries to develop support systems for people affected by cancer.² Cancer prevention should be a priority topic in health promotion programs, tailored to affect behaviour change, particularly among high-risk groups.^{4–6} Cancer risk assessment, outside of clinical

settings, is lacking and needs to be incorporated into the primary health care system as an initial step to determining, evaluating, and communicating risk from personal exposures to the natural environment, occupations, and socio-cultural factors. Policies are also needed to drive and support interventions, albeit, consideration must be given to maintaining a balance between individual rights and freedoms and the obligations of state authorities to protect public health.

Health education and behaviour theories, considered in combination or separately, are extremely valuable to explain relationships between societal variables and predict disease outcomes from these interactions.⁷ The literature currently indicates a lack of inclusive cancer-targeting interventions, simultaneously addressing the individual, family, organizational, and community levels within and across Caribbean countries. There may still be little recognition of how synergy across the ecological levels – individual, interpersonal, and community – cumulatively influences population health outcomes. The application of theories, such as the Health Belief Model (HBM), calls for addressing gaps in individual education and awareness of risk, susceptibility, and efficacy to respond to health threats.⁸ At the interpersonal level, the tenets of the Social Cognitive Theory (SCT) – personal factors, including knowledge and attitudes; environmental factors, including societal norms and

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expectations; and human behaviour, such as by different genders - and other theories have strong influences on health-determining interactions between people.⁸ Community factors are the most distal from the individual level but also influence health outcomes through the actions of key stakeholders. The tenets of Community Organization postulate building and strengthening partnerships to function within and enhance organized structures across the ecological levels.⁸ Diffusion of Innovation (DoI) postulates knowledge sharing, transfer, and management for human development.⁸

This Review is focused on six areas that are pertinent to cancer control and management in the Caribbean region. The proposed approaches encapsulate concepts of health theories and their application across the ecological domains. When implemented in combination, the proposals may effectively contribute to reducing the cancer burden on the Caribbean populations. The discussions in this Review specifically address cancer prevention and patient education, data management and knowledge dissemination, screening and risk assessment, navigation services, considerations of gender factors, and human resource and facilities development. Significant benefits can be derived from comprehensive tailored programs, addressing the most critical areas for cancer control and management, while also harmonizing national and regional initiatives.

Search strategy and selection

References for this review were identified through PubMed, Ebscohost, ScienceDirect, and Google Scholar search engines with the following search terms “cancer education”, “cancer” and “knowledge”, “cancer” and “awareness”, “cancer” and “gender”, “cancer” and “men”, “cancer” and “women”, “cancer” and “patient navigation”, “cancer” and “risk assessment”, “cancer” and “risk calculator”, “cancer” and “patient support”, “cancer” and “Caribbean”, “cancer” and “Latin America”, “cancer” and “West Indies”. The inclusion criteria were credible data and scholarly peer-reviewed articles between 2012 and 2021 on cancer within Latin America and the Caribbean region, with an English language restriction. Exclusion criteria were data that focused only on other non-communicable diseases like cardiovascular disease and diabetes. The final list of references was created based on their relevance and significance to cancer education, data management, screening and risk assessment, navigation services, gender factors, and human resources and facilities development in both English and non-English speaking Caribbean countries.

Need for tailored and sustainable cancer prevention education

A healthy population is a pillar of a strong economy and a necessity for sustainable development. It is imperative

to address the local and regional health burdens to help drive economic growth and development in the region. Approximately 70% of cancer deaths occur in low- and middle-income countries, with a substantial increase projected in coming years, despite the preventable nature of these deaths.^{9–11} The majority of Caribbean countries fall into the low- and middle-income economic brackets. In these small economies, financial barriers both in the delivery and access to health services are commonplace. Financial limitations, together with other entrenched socio-cultural barriers, significantly exacerbate cancer risk. Notwithstanding, similar concerns about cancer prevalence and mortality also confront the regional high-income economies, such as Trinidad and Tobago and Barbados.^{12,13} The regional context truly highlights a need for prevention and reducing the burden of the disease.

The development and dissemination of cancer education programs are most effective when tailored to the need and context of the population and the environment.^{4,14–16} Currently, there is limited high-confidence information relating to cancer management in the Caribbean region.^{17–20} Cancer hazards and exposures, individual and community risks, and disease outcomes across various demographics need to be researched in more depth and incorporated into the development of targeted risk-based education programs.²⁰ Such research can be undertaken through collaborations between academia, community groups, government organizations, advocates, and donors. The diversities in culture, belief, and practice across the region should not be ignored, but instead provide a reference to orient research, interventions, and policies toward strategic groups.^{21–23} Local cancer organizations mostly shoulder the burden of the delivery of cancer prevention education and patient support programs. These organizations are usually under-resourced and programs are short-termed, sporadic, and limited to specific demography rather than targeting many of the complex upstream and downstream risk factors that confront individuals across their lifespan.²⁴ In the future, it may turn out that these programs, acting individually, do not have a sufficient impact on the trend of cancer incidence and mortality in the region. Establishing local and regional consortia for research-informed cancer prevention and patient education programs may be the most tactical way forward.²⁴

Given the shared weaknesses in cancer care infrastructure, education programs, and support systems across several Caribbean states, virtual cancer education programs can provide unlimited access to preventive education and encourage lifestyle changes to reduce risks and the cancer burden. Irrespective of the modality of delivery, there can be an extrapolation to non-academic settings of four essential components of cancer education presented by Welch *et al.*, which are also crucial for sustainability.²⁵ The regional programs can

benefit greatly from incorporating four attributes presented: First, multiple educational stakeholders - including health workers, scientists of multiple disciplines, cancer patients and families, and all personnel interacting with cancer patients – should be involved and use their influences for the development of programs that span the continuum from research to clinical care, provide and mobilize resources, and support high participation by target groups. Second, cancer prevention education should be multidisciplinary, allowing for the incorporation of skills and knowledge of various experts. Cancer education can benefit from an integration of practice and outcomes of clinical science, laboratory science, and social/community science. Third, cancer education programs should be organized across society. The program should be customizable to suit each level of the society and participating institution, highlight best practices, and be subject to evaluation. Fourth, cancer education programs should be accessible to target groups, flexible to meet immediate and longer-term needs, resourceful, and with robust dissemination and communication to stakeholders. Opportunities should be made available for professional development to sustain high-quality delivery, support capacity development, and program sustainability.²⁵

Need for cancer registries and data repositories to drive public health interventions

Spence *et al.* noted a scarcity of published data on cancer prevention and patient care in the Caribbean and Latin American countries.² Cancer registries are not established in many countries, increasing the difficulty to collect, manage, and disseminate cancer data. Banydeen *et al.* reported that only 12 established cancer registries existed in the region at the time of a study in 2015, of which only four registries could provide the World Health Organization with high-quality cancer incidence information.²⁶ Without realizing it, this limitation in cancer-related information can have a crippling effect on countries' abilities to control and manage the disease and outcomes in populations. Health promotion can be misaligned and diminished in the absence of epidemiological supporting evidence. Studies have shown that countries with established cancer registries have also had greater success with cancer management programs.^{27,28} In 2018, the Caribbean Public Health Agency (CARPHA), in collaboration with the International Agency for Research on Cancer (IARC), United States National Cancer Institute (NCI/NIH), the North American Association of Central Cancer Registries (NAACCR) and the United States Centers for Disease Control and Prevention (US CDC), launched the Caribbean Cancer Registry Hub.²⁹ The success and sustainability of this initiative will, however, depend on countries participating and making provisions for robust activities and maintenance at the local levels.

The Repository of Caribbean Cancer Publications (ReC-CaP), hosted by the Caribbean Cancer Research Initiative (CCRI), is another platform that provides information on cancer in the region and the Caribbean Diaspora. Public and private regional health organizations can contribute towards enhancing and tailoring the context of the platform to better meet the needs of a cross section of stakeholders.

Need for cancer screening and risk assessment to influence health behaviours

The vibrant cultures and festivities in the Caribbean countries typically involve celebrations in which risky behaviours, such as heavy consumption of alcohol, red and processed meats, carbohydrate-dense foods, and foods high in fat, sodium, and sugars are very common. Obesity is a known risk factor for numerous secondary health problems.^{28,30} In some Caribbean societies, there is tolerance for 'fuller' body sizes and low cognizance of the risk of overweight and obesity in both women and men. Counter-nutritious diet, alcohol consumption, and physical inactivity are modifiable cancer risk factors prevalent in Caribbean societies.^{31,32} Additionally, exposure to toxic compounds, such as from industrial activities and the use of pesticides and hazardous domestic products, constitutes a risk of cancer and a myriad of other serious illnesses.^{33–35} Growth and economic development have propelled the region to expanding industrialization and increased consumption and disposal of several known highly hazardous compounds, resulting in the population's exposure through interactions with air, soil, water, and food.

Scrimshaw and Doede postulate that health-related beliefs and behaviours emanate from observed cultural norms, individual mental processing of information, and prior experience with the specific or related issue.^{22,36} Socially learned values, meanings, and ideas also help pattern behaviours within an environment.³⁷ Precedence is usually given to fitting in with the societal norms at the expense of considering and addressing risk to the individual. Cancer screening and risk assessment can be powerful interventions to change the interplay between personal beliefs and desired behaviours.^{37,38} Risk assessment that is culturally appropriate, theory-based, and relatable to society is most effective to reach intended audiences and create awareness that is impactful for behaviour change.³⁹

Insufficient and late screening are major challenges that contribute to high cancer mortality rates in developing countries compared to the rates in developed countries.^{10,22,37,40,41} For example, the cancer mortality rate in 2016 in the USA was 15.4 for females with breast cancer and 11.5 for males with prostate cancer, while in Antigua and Barbuda the rates were 44.7 and 50.4; Grenada 43.5 and 90.3; St. Kitts and Nevis 31.3 and 89.9, respectively, for the same period.² The high mortality

rate in the Caribbean region may be a result of frequent late diagnosis or beyond Stage I cases while about half of the diagnoses in the US were at the early stage.² This disparity between countries highlights the need to promote cancer screening which can also be preceded and followed by cancer prevention education.

According to Christian and Guell,⁴² the incidence and mortality rates of cervical cancer in the Caribbean and Latin America are among some of the highest in the world, with approximately 20-80 women in 100,000 being diagnosed each year. George *et al.*⁴³ reported that only 10% of sexually active young people and 46% of adults in studies in the Bahamas were aware of the existence of Human Papillomavirus (HPV). The participants that were aware of HPV still lacked understanding of its manifestations and association with cancer.⁴³ If the knowledge gap is addressed, it may encourage taking preventive measures, inclusive of using condoms, doing a Papanicolaou test, and receiving vaccines to alleviate health problems among Bahamians.⁴³ These studies also highlight the need for and potential effectiveness of education and screening as co-interventions to control cancer in the region.

Although limited, the region is not totally lacking in cancer risk studies. Persaud *et al.* referenced prostate cancer risk related to ethnicity among men in the Caribbean.⁴⁴ Donenberg *et al.* focused on genetic testing for breast cancer among women in Trinidad and Tobago.⁴⁵ Bunker *et al.* also examined age and ethnicity as risk factors for prostate cancer among men in Trinidad.⁴⁶ Ragin *et al.*, however, noted that region-based breast cancer studies are primarily descriptive, focusing on trends and clinicopathological aspects while the role of risk factors such as genetics and behaviours are less studied.¹⁸ Based on a systematic review on breast cancer in the Caribbean region between 2004 to 2014, Brown *et al.* underscored the scarcity of information on prevalence and outcomes and an even wider gap in information relating to the social determinants of breast cancer in Caribbean countries.⁴⁷ Differences in ethnicity and cultural practices limit the reliability of extrapolation and generalizing risk across the region. Hence, it is important to develop and apply risk tools that are more appropriate and specific to respective populations. The Pan American Health Organization (PAHO) has proposed that English speaking countries in the Caribbean work together to increase breast cancer screening to at least 50% coverage in women 50-69 years and cervical cancer screening to at least 70% in women 30-49 years.⁴⁸

Launching online cancer education platforms with embedded risk assessment tools can help to capture the attention of a wider cross-section of the public and evoke consciousness of personal risk that may have been previously unknown or ignored. Hovick *et al.* stated that interactive technologies, which are empirically and theoretically supported, have been recognized

as beneficial disease risk communication instruments.¹⁴ The effectiveness of online cancer risk assessment tools to create health awareness was particularly emphasized.¹⁴ Risk assessment tools use algorithms to calculate individual risk of cancer generated from the interplay between personal, family, and environmental factors. Currently, there is no cancer risk assessment tool designed for specific application to Caribbean populations. A crucial need in the Caribbean, therefore, is for the development of risk calculators that require inputs reflective of the known relevant factors in the regional and country-specific environments. Cancer risk assessments tend to be methodologically complex and difficult to measure and interpret. As a first step in addressing cancer in the region, there must be awareness and understanding of individual risk deriving from active thinking about health history, health behavior, and health status.¹⁴ Risk assessment outputs present an opportunity to close knowledge gaps and positively influence culture-specific psychosocial factors, such as attitude and self-efficacy, which also impact health behaviours.¹⁴

Need for cancer patient navigation services to improve disease outcome

A cancer diagnosis can be traumatic and patients and family members may experience psychological distress.⁴⁹ The psychological state of the patient, in particular, may determine readiness and willingness to access and follow up on treatments. Additionally, scarcity of cancer health services in some countries, lack of education relating to cancer treatments, and financial constraints also contribute to patients foregoing or discontinuing care, resulting in a diminished quality of life and lower survival rates.¹⁶

Patient navigation services, especially if provided immediately after diagnosis, can improve treatment uptake and also reduce the number of patients lost to follow-up along the continuum of care. Cancer patients are usually interested in information about the disease, nutrition, treatment options, and the cost of treatments.⁴⁹ Cancer patient navigation services need to be developed and implemented in Caribbean countries, echoing the call at a 1989 court hearing to improve services for poor and disenfranchised cancer patients.⁵⁰ With few trained navigators in the region, priority must be given to building the human resource capacity to expand and enhance services. Considering the regional context, Ashing proposed acquiring the skill set for “coordinating and streamlining care in a complex and resource-limited cancer care continuum; explaining diagnosis and treatment options specific to the setting; providing support in physical, practical, mental, and emotional challenges; educating and empowering patients in their journey; tracking patient medical records electronically; and addressing barriers to care.”^(40, pp264)

Patient education is associated with greater satisfaction with treatments, improved communication with family members, and overall better quality of life.⁴⁹ Evidence of the positive impacts of patient education and navigation services is demonstrated in results from the training and support initiatives of the CCRI which was established in 1990. Thirty years later, in 2020, a report indicated that navigation services contributed to improving survival rates from 39% to 70%.⁵¹ It is expected, however, that uptake of the services across the region and, particularly among people in low socioeconomic groups, may be limited. There is a need, therefore, to expand navigation services that are also affordable for the regional people. There have been calls for and progress in training navigators and testing service models to determine feasibility and practicality for the Caribbean region.^{52,53} Having pertinent information, as well as support, helps cancer patients to cope with the challenges of disease management and treatment, reduces depression and anxiety tendencies, supports decision-making, and prepares patients to engage with the health care providers and the medical system. Peer-to-peer support and interactions also foster a sense of “others like me” and “being there for me”, which can instil a positive psychological outlook.⁵⁴

Need to address health influencing gender factors

In the Caribbean countries, the attitudes and practices relating to health differ between men and women, making gender an important determinant of health. According to Case and Gordon, the cultural belief system as well as the ideology of how men should perceive and interact with the world shape masculinity and influence men’s health behaviour.⁵⁵ Masculinity is often associated with self-reliance, resilience, and hidden emotions that are deemed to display toughness and ability to cope with adversity without a need to seek care.⁵⁵ Depending on the family structure, a man’s ideology about health may even dictate the practices and decisions of the other household members.

A study conducted by King-Okoye, Arber, and Faithfull found that delays in the diagnosis of prostate cancer among Afro-Caribbean men in Trinidad and Tobago were a result of barriers in seeking care.⁵⁶ These barriers included a lack of awareness and knowledge about prostate cancer and its symptoms, prostate-specific antigen, and digital rectal examination. Other barriers included culture, hegemonic masculinity norms, and religion. Many had experienced physical changes, such as pain in the groin, weight loss, fatigue, straining and urgency to urinate, and blood in the urine but delayed medical assistance based on the severity of the changes. Some men concealed their issues due to taboo surrounding symptoms which are perceived as making a man vulnerable and threatening manhood. For

example, some men did not report experiencing erectile dysfunction to their doctors. Others believed their symptoms were a natural part of ageing, linked the symptoms to other diseases, self-managed the symptoms, or bore pain with the belief that men should be tough and not complain.⁵⁶

Perhaps one of the most interesting taboos regarding prostate cancer screening in the Caribbean environment is the association of digital rectal examination with homosexuality.⁵⁶ Although homosexual inclusive spaces exist, generally, there is still a deep disdain for homosexuality and related activities in the region.⁵⁷ Consequently, many men forego digital rectal examination. Traditional ideologies of male gender roles also contribute to the belief that sexual prowess is a fundamental component of masculinity. Any physical changes that challenge this prowess are ignored or concealed by many men.

A study conducted by Balas *et al.* among Jamaican women found that some of the barriers to breast cancer screening included being a younger woman under the age of 50, being at the stage of pre-contemplating breast cancer screening, having more than three children and needing assistance with childcare, lack of screening facilities, and high cost of screening.⁵⁸ Another study in Haiti also found that the cost of screening and care was a significant limiting factor to accessing health care.⁵⁹ The absence of universal health coverage, leading to financial strain for care, was also found to be a significant problem in other Caribbean and Latin American countries.⁶⁰ While there are legal provisions in the majority of Caribbean countries for equal rights to education for men and women, there are more nuances in societies regarding women’s rights and access to work. Many women face barriers to work; including being the sole parent responsible for providing care for children and elderly people and poor job marketability due to low education attainment and skill set. These factors can have a considerable negative impact on a woman’s ability to access health care if not financially stable or permitted or supported by a male partner to do so.⁶¹ According to Liebermann *et al.*, some Caribbean men are also averse to women having procedures, such as the Papanicolaou test, by male medical personnel.⁶²

In the study in Jamaica, Liebermann *et al.* also found that many women tended to neglect their own health needs due to competing priorities, such as having to care for children and other family members and out-of-house work responsibilities.⁶² Lack of knowledge was another important barrier as most women in the study had heard of the Papanicolaou test but did not know its purpose or benefit. The women who did not have a Papanicolaou test were 11 times more likely to report a lack of knowledge about screening guidelines. Additionally, there were misconceptions about the causes of cervical cancer, embarrassment and fear of pain in the procedure, anxiety about a possible positive cancer result, belief that nothing could be done if there was a

positive cancer diagnosis, and a seeming absence of a culture promoting preventive health for women.⁶² The study in Jamaica highlights the need to address the fears and concerns of both men and women towards increasing the uptake of cancer-related prevention and treatment services.

The gap in knowledge about cancer was further highlighted by Tillyard *et. al* in another study in Haiti.⁶³ The results show that of the few women who believed they were knowledgeable about breast cancer, only 14% were correct in their awareness of risk factors and 40% were correct in their awareness of symptoms. The majority of the women were aware of complications from breast cancer. There was higher awareness of cervical cancer compared to awareness of breast cancer but still poor results for both cancers as women lacked knowledge of critical information on risk factors and symptoms. Many women knew more about the complications of breast cancer, such as the removal of a breast and death, but not the actions that can be taken to prevent those complications. These knowledge gaps left the women vulnerable to developing cancer-related complications.⁶³ This study, conducted in Haiti, a poor Caribbean country, can also represent the issues that confront women in other low-income economies and poor communities across the region, resulting from the lack of opportunities and resources for cancer education development.

In the region, womanhood is deeply associated with the shape and form of a woman's body and the connotation of the breast is likened to femininity. The removal of the breast is often viewed as creating a deformity and reducing a woman's femininity.¹⁶ Misconceptions and beliefs about possible family abandonment, embarrassment, neglect, and even divorce as a result of mastectomy can influence decisions to delay seeking clinical care in favour of traditional healers¹⁶ and possibly result in less favourable outcomes.

While there are limitations in the number of programs addressing gender factors in cancer patient education and care, these limitations can be overcome. There have been pockets of success in regional interventions that might serve as models for the wider Caribbean. For example, a model applied by the International Us TOO Prostate Cancer Support Group (UTGB) in the Bahamas from 2012 to 2015 resulted in high clinic attendance by men for prostate cancer screening.⁶⁴ Program quality, cost-effectiveness, and policy guidelines were found to be of critical importance along with community participation for the sustainability of such initiatives in low- and middle-income countries.⁶⁴

Need for oncology experts and specialized facilities for high-quality advanced care

The results from a study among cancer service providers in 14 Caribbean countries indicate that oncology

specialists' staffing per capita to population demand was inadequate based on recommendations by the American Society of Clinical Oncology and the International Atomic Energy Agency.⁶⁵ Several Caribbean countries also lacked adequate and modern equipment and infrastructure, workforce training, and professional development opportunities. The region has experienced low retention of medical professionals, who often migrate in pursuit of higher income and improved working conditions. A low density of cancer specialists in the population, coupled with underdeveloped infrastructure and limited human capacity will inevitably lead to higher cancer mortality rates within countries. Notwithstanding, the small economy of scale is a limiting factor for operating highly specialized and expensive technologies in Caribbean countries.⁶⁵ Regional collaboration for resource-sharing is a practical and feasible approach to capacity building and improving access to improved care in the region.

Cancer is a complex disease, often requiring significant changes in patients' way of life, making it difficult to maintain treatment and management of the disease.⁴⁹ Pain management and palliative care for cancer patients are still relatively under-sourced within the region, particularly in the smaller islands. The need for these services is being increasingly recognized and a few countries like Trinidad and Tobago and Antigua and Barbuda have been scaling up local services.² The Caribbean Cooperation in Health (CCH) can be an instrumental framework to support the development of cancer services across the Caribbean community. Through previous iterations of the framework, the regional countries have successfully cooperated to develop and maintain efficient and cost-effective systems.⁶⁶ Regional health authorities, including PAHO, CARPHA, and CCRI have been providing technical support, for example, to improve cancer screening among Caribbean women,⁴⁸ enhance cancer data collection²⁹ and providing training for cancer patient navigators and care professionals.⁵¹ Other regional professional bodies, such as the Caribbean Association for Oncology and Haematology (CAOH), may also be instrumental in providing training and support for professional members. Local initiatives, such as the introduction of navigation services in Trinidad⁵² and the piloting of community-based clinics for prostate cancer screening in the Bahamas,⁶⁴ to test models and identify best practices are novel and expected to contribute significant evidence to support the development of enhanced and tailored cancer education and patient services for the Caribbean region. These initiatives, however, are still largely restricted to the high-income economies, further highlighting a need for equity in the distribution of high-quality care across the region. Affordable intra-regional transportation and implementation of national health insurance are among measures that

can significantly change the equity landscape and increase access to high-quality care. The use of telemedicine would be of a high advantage for diagnosis and treatment from locations within the region. Telemedicine can facilitate improved patient-practitioner interactions and support timely and appropriate decision-making for cancer prevention or disease management.

Conclusions

Cancer is a preventable yet increasingly common disease in the Caribbean. Often diagnosis and treatment occur too late and yield reduced quality of life for patients and increased mortality. Caribbean countries can improve control and management of cancer incidence and related mortality through (1) providing tailored and sustainable cancer prevention and patient education on a wide scale to the public, (2) establishing cancer registries and data-banks to inform evidence-based public health interventions and improving cancer data collection through registries and management to inform public health interventions, (3) increasing cancer screening and risk assessment for the public to influence population health behaviours, (4) introducing and expanding cancer patient navigation services to improve disease outcome, (5) addressing health- influencing gender factors, and (6) increasing staffing of oncology experts and specialized facilities to deliver high-quality advanced cancer care. In this resource-limited region, the need to alleviate the cancer burden on individuals and health systems is urgent. Proposed approaches should encapsulate concepts of health theories that consider risk and support interventions at the individual, interpersonal, and community levels. Collaboration and resource-sharing are important and feasible for capacity building. At the same time, consideration should be given to developing comprehensive programs to operate harmoniously at the national and regional levels, spanning the six critical areas discussed in this paper. Finally, affordable intra-regional (medical) transportation, telemedicine, and national health insurance can enable more equitable access to cancer services for Caribbean people.

Contributors

Lindonne Glasgow: Conceptualization, literature review, original draft manuscript drafting, review and editing, supervision, corresponding author.

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Declaration of interests

All authors declare no conflict of interest from financial or personal relationships with other people or organizations.

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