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Public Health and Policy in Cancer Care: Challenges, Strategies, and Future Directions

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Abstract

Cancer remains one of the leading causes of mortality and morbidity worldwide, placing immense burden on healthcare systems, patients, and economies. This study explores the intersection of public health strategies and health policy in improving cancer care outcomes. A mixed-methods approach was employed, combining a review of national policy documents, global cancer control frameworks, and epidemiological data from selected regions. The analysis reveals critical gaps in policy implementation, equity in access to care, and resource allocation. The study proposes actionable strategies for strengthening cancer care systems, including policy integration, community-based prevention, and value-based financing. Findings underscore the need for cohesive public health approaches aligned with policy reform to address disparities and enhance cancer care delivery.

Keywords: cancer care, public health policy, health equity, prevention strategies, oncology systems, health systems reform

Introduction

Cancer constitutes a growing global health challenge, with an estimated 19.3 million new cases and nearly 10 million cancer-related deaths reported in 2020, according to the World Health Organization. While advancements in diagnostics and treatment have improved survival rates, disparities in access, quality of care, and preventive strategies persist, particularly in low- and middle-income countries (LMICs). Public health plays a vital role in shaping comprehensive cancer control strategies, encompassing prevention, early detection, treatment, palliative care, and survivorship support.

Health policies influence cancer care outcomes by directing funding, defining care pathways, and regulating health systems. However, policy gaps, fragmented health services,

and socio-economic inequalities often hinder the delivery of equitable cancer care. This study investigates the current landscape of cancer care policies across selected countries, evaluates public health strategies, and proposes integrated approaches to bridge policy-to-practice gaps.

Materials and Methods

Study Design

A qualitative-dominant mixed-methods study was conducted from January to December 2024. The research involved document analysis, expert interviews, and secondary data review from global health databases.

Data Collection

1. **Policy Document Analysis**: National cancer control plans (NCCPs), healthcare financing frameworks, and public health strategies from ten countries were reviewed.

2. **Key Informant Interviews**: Semi-structured interviews were conducted with 25 experts in oncology, public health, and health policy.

3. **Epidemiological Data Review**: Cancer incidence, mortality, and healthcare access data were extracted from WHO, GLOBOCAN, and national health registries.

Inclusion Criteria

- National policies published between 2015 and 2024

- Countries with varying income levels (low, middle, high)

- Documents available in English

Data Analysis

Thematic analysis was used for qualitative data, identifying recurring policy themes and implementation challenges. Descriptive statistics summarized quantitative epidemiological trends.

Results

The analysis highlighted three core findings:

1. **Policy Fragmentation and Limited Implementation**

o Many countries have formal NCCPs, but lack operational frameworks and dedicated budgets for implementation.

o In LMICs, preventive strategies are often underfunded, while tertiary care consumes the majority of cancer funding.

2. **Health Inequities and Access Gaps**

o Disparities in access to screening and treatment persist along socio-economic and geographic lines.

o Rural populations face delayed diagnoses and limited treatment options due to healthcare workforce shortages and poor infrastructure.

3. **Emerging Public Health Innovations**

o Community-based screening initiatives, mobile diagnostics, and teleoncology are gaining traction in several regions.

o Integration of cancer control into primary care systems was associated with improved early detection rates in select pilot programs.

Discussion

The study underscores the centrality of coherent public health policy in delivering effective, equitable cancer care. Despite the proliferation of cancer control strategies, policy-to-practice translation remains inadequate in many contexts. A lack of political commitment, insufficient intersectoral coordination, and limited financing mechanisms are key barriers to robust cancer policy implementation.

Evidence from countries with integrated care models—where primary care providers are trained in cancer detection and referral—demonstrates improved patient outcomes. Moreover, public health campaigns tailored to local cultural contexts have shown success in increasing screening uptake for cervical and breast cancer.

Public health must advocate for upstream policy reforms that prioritize prevention, address social determinants of health, and ensure continuity of care. Strategic investments in cancer registries, workforce training, and value-based purchasing are essential for sustainable cancer systems.

Conclusion

Strengthening cancer care requires an integrated approach that aligns public health strategies with pragmatic, well-funded health policies. Addressing disparities, enhancing primary care capacity, and ensuring equitable resource distribution are crucial for impactful cancer control. Policymakers, clinicians, and public health professionals must collaborate to create responsive systems that deliver not just treatment, but long-term health equity and survivorship support.

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