

Cancer Nursing's Potential to Reduce the Growing Burden of Cancer Across the World

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The Global Burden of Cancer Is Growing

Cancer is the first or second leading cause of premature death (i.e., at ages 30–69 years) in 134 of 183 countries, and it ranks third or fourth in an additional 45 countries.¹ An estimated 18.1 million new cancer cases and 9.6 million cancer-related deaths occurred worldwide in 2018.² The incidence of cancer globally is expected to exceed 27 million new cancer cases per year by 2040 in part due to the aging of the population and greater susceptibility to aging-related diseases such as cancer.³ This estimated increase in cancer incidence will occur in all countries, but the predicted increase will be proportionately greatest in low and medium countries.³ Cancer is also a disease associated with significant morbidity. It is estimated that the total annual economic cost of cancer in 2010 was US\$1.16 trillion per year.⁴

There is extensive evidence which indicates that the burden of cancer can be substantially reduced. Approximately 30%–50% of cancers can be prevented, early diagnosis and access to evidence-based treatments can significantly improve survival, and evidence-based supportive care interventions can significantly improve safety, reduce morbidity, optimize quality of life, and improve the experiences of health care for the person affected by cancer and their family. Reducing the burden of cancer is not only about limiting the numbers of those affected by cancer. It also requires actions to improve the person's experience of cancer across the disease trajectory.

Cancer control has been a growing priority of governments globally and the World Health Organization (WHO). The 2017 World Health Assembly resolution on cancer prevention and control proposed an

integrated approach to cancer control from a public policy perspective. The guiding principle of these WHO efforts is that health is a basic human right, and in order to respect that right, health services need to be provided through a universal health coverage system that leaves no one behind.⁵

The Nursing Workforce Is Essential to Cancer Control

There are over 20 million nurses and midwives worldwide, making them the largest group of health professionals who are well placed to reduce the burden of cancer. In many countries, nurses are at the front line to reduce the burden of cancer as they provide essential primary healthcare services, which include education focused on prevention and early detection of cancer. Nurses also reduce the burden of cancer by delivering complex treatments, ensuring timely and safe minimization of complications, providing care for individuals and their families across a range of care settings, and empowering individuals and their families to assume self-management of the disease.^{6,7} Achieving the goal of universal health coverage to reduce the burden of cancer therefore urgently requires that nursing services are not only strengthened, but that they are optimized and extended.

Nurses Reduce the Burden of Cancer Across the Cancer Trajectory

Nurses contribute to reducing the burden of cancer across the entire pathway (see Table 1).

Cancer nurses have distinct functions that are critical to the success of modern cancer care, especially in this time of unprecedented change to the nature of cancer treatment and control. These broad impacts of nursing services in cancer control are demonstrated in a growing body of evidence from studies in high-resource countries. One recent scoping review of 214 studies of interventions led or delivered by cancer nurses involving 247,550 participants concluded

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that nursing interventions were delivered across the cancer continuum from prevention and risk reduction to survivorship. The interventions included case management, surveillance, teaching, counseling and guidance, and a variety of treatments and procedures. Most of the interventions were delivered by specialist or advanced practice nurses, highlighting the need for a robust career structure and education for nurses.⁶

An Opportunity to Realize the Essential Role of Nurses

There is substantial unrealized potential for nurses to reduce the burden of cancer across the world. In low- and middle-income countries, there is an opportunity for government and non-government organizations to improve the working conditions of nurses, such as low pay, workforce shortages, and a lack of opportunities for professional growth.^{7,8} In many high-resource countries, while specialized cancer nursing roles have developed over many decades and there is a strong evidence base to support them, there is substantial variation in access to such services and regulatory, system-level, and professional barriers that limit service delivery.

Call to Action

It is our position that:

- Nurses are essential to the success of reducing cancer incidence, improving survival and quality of life, and providing better palliative care.⁷
- Well-prepared cancer nurses have demonstrated wide-ranging impacts across the spectrum of cancer care in many high-income countries. To benefit from this expertise, substantial efforts to build nursing workforce capacity are required in low- and middle-income and high-income countries where the nursing workforce does not have access to adequate education.⁷
- The role of the cancer nurse needs to be formally recognized as a key part of global cancer control efforts, and appropriate nursing resources should be mandated within all cancer control programs⁷.
- Government and non-government organizations must optimize the substantial resource of nurses to ensure that the burden of cancer is reduced worldwide. This requires urgent action to ensure:
 - Adequate education for nurses
 - Removal of regulations that act as barriers to nurses' practice
 - Safe staffing levels
 - Safe work environments

TABLE 1. Examples of the Contribution of Nurses Across the Cancer Trajectory⁷

Cancer Education

- Increase adherence to screening guidelines.
- Counsel patients on access to local health systems to decrease delay in care.
- Educate community health workers about cancer to raise awareness and appropriately refer a patient for further evaluation.

Prevention

- Implement preventive interventions at both the individual and the community level given their accessibility to and active role in the community.
- Identify risk factors, and communicate and teach individuals, families, and communities to change behaviors to reduce risk factors (e.g., smoking cessation, uptake of vaccinations, inactivity, poor diet, sun exposure, alcohol intake).

Screening and Early Detection

- Perform the broad range of interventions that contribute to screening, early detection, and even treatment of precancerous lesions.

Treatment

- Clinically assess and educate patients and family members about treatments by addressing patient fears and providing information about potential adverse effects.
- Identify adverse effects early so that steps can be taken to avoid complications, avoid treatment delays, and ensure safety.
- Conduct a comprehensive assessment of the health and supportive care needs of patients with cancer.
- Educate and provide psychosocial and spiritual support by sharing and applying knowledge of cancer and treatment modalities and adverse effects.

Palliative Care

- Assess, identify, and manage not only pain but also the physical, psychosocial, spiritual, and cultural needs of patients and their families throughout the cancer journey and at the end of life.

Survivorship

- Psychosocial support and healthy lifestyle promotion to improve quality of life and behavioral outcomes for patient.
- Assess and educate about physical changes and late effects following cancer treatment.

Research

- Develop new knowledge.
- Collaborate with epidemiologists, public health, and researchers from other disciplinary backgrounds.

- Investment in innovative nurse-led models and practices
- Greater nursing leadership in cancer control
- Stronger partnerships between all involved in cancer control
- Research to advance the evidence base for cancer nursing

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