I was asked to share my vision for a worldwide nursing workforce prepared to address cancer care across the continuum, from prevention to palliative care.

The majority of cancer cases are in high-income countries such as Australia, Canada, USA, and countries of Western Europe. However, when looking at the distribution of cancer-related mortality, it is clear that these high-income countries are also where a person diagnosed with cancer has the best chance of survive, with mortality disproportionately occurring in low- and middle-income countries (LMICs).

When considering trends, and quantifying the burden of cancer from mortality and morbidity through disability-adjusted life year (DALY), it is alarming to notice that the rates of cancer-related DALYs increased significantly, in some cases more than doubled, in LMIC, particularly the African continent and South-East Asia and Pacific island countries from 1990 to 2010. This increase has been demonstrated in different types of cancers such as leukemia, cervical, breast, and lung cancer. Consequently, there is a growing need for cancer care in LMIC, and health systems, globally, are trying to adjust to these changing needs. Regardless of region or country, nurses are the backbone of the healthcare system, but need to be properly prepared to address the growing care needs of individuals at risk or diagnosed with cancer. The question remains on how are we, nurses, going to be ready in the short, medium, and long-term to respond?

The number of nurses is not evenly distributed globally. Most nurses are in Europe and America, with the caveat that 59% of the nurses in the American region are on only two countries: Canada and the USA. This leads us to a severe shortage, particularly in LMIC.

A related challenge in meeting the educational needs of nurses, globally, is a changing definition of “oncology” nursing. That would help define who is our target audience.
Although the exact numbers are not known, the majority of persons diagnosed with cancer do not receive care in specialized cancer centers.\(^3\) Furthermore, the important care related to prevention and screening is often performed by nurses who may not traditionally identify themselves as oncology nurses, but rather as public health nurses, maternal-child health nurses, midwives, and palliative care nurses. Thus, if nurses truly are to be prepared to care for patients across the continuum, cancer nursing education needs to be intertwined within all stages of nursing education. Nursing education must be “based on standardized, evidence-based curricula, adapted to meet each country’s needs, and based on lifelong learning” (Joint statement on World Cancer Day 2015, http://www.isncc.org/?page=WCD2015).

What we do know is that a better-educated nursing workforce leads to better patient outcomes.\(^4\) which has been confirmed by nursing-lead research in cancer care.\(^5\) Thus, there should no longer be a debate that is cancer care education should be part of basic or specialized, but it needs to be both basic and specialized, with the added benefits of advanced practice nursing in cancer care where feasible and available.

A good place to start is addressing barriers to incorporating cancer-related education into already full nursing curricula. However, nursing educators need to remember that not including a leading cause of suffering, disease and death is no longer an option.

Table 1 includes some examples of barriers and suggestions on how these can be addressed.\(^6\)

Table 2 provides some specific ideas on the areas of existing basic nursing curriculum that could be expanded to ensure that cancer-related content is included.\(^6\)

In addition, there is a need to address the educational needs of nurses who are currently in practice through continuing education. Professional organizations, such as ISNCC, and healthcare systems have been developing a range of strategies to meet these educational needs. Stronger partnerships between professional societies and health system would strengthen these education initiatives.

Distance learning, where feasible, should be encouraged. There is a myth that distance learning is only possible in high-income countries, but with new mobile technologies developing at a fast pace, nursing needs to explore all opportunities to facilitate nurses’ access to continuing education. It is pivotal, however, that continuing education initiatives are coupled with evaluation strategies to ensure changes in nursing practice that improve cancer care. These new technologies could be coupled with more traditional methods such as seminars and workshops, but it is fundamental that educational initiatives target “nontraditional” oncology nurses, i.e., nurses in community settings, primary care clinics, general hospitals, and palliative care facilities. ISNCC has a series of resources for continuing education in several languages and topics available at www.isncc.org. Galassi et al.\(^7\) outlined ISNCC’s vision for strengthening the oncology nurse workforce in LMIC via education, including the need for broader collaboration among all stakeholders, and the need to ensure that educational programs are sustainable through engagement with policymakers inside and outside the nursing profession.

There are multiple opportunities for nursing within the global political context. Addressing the burden of cancer has been inserted as within the United Nations’ noncommunicable diseases (NCD) targets, providing a platform to engage with policymakers on the needs of oncology nursing education. Furthermore, the NCD targets.

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### Table 1: Examples of barriers for including cancer content in nursing curriculum and suggested measures to address these barriers

| Barrier                             | Suggested measures                                         |
|-------------------------------------|------------------------------------------------------------|
| Limited preparation of educators    | Continuing educational, train-the-trainer workshops, on-line programs, and resources |
| Lack of curricular support          | Designate a faculty champion                                |
| Not a curriculum priority           | Advocate for explicit content                              |
| Student assignments                 | Include as an option, require risk factors to be included in all clinical write ups |
| Lack of cancer-related content in prelicensure and advanced examinations | Policies to ensure that competency as an outcome of basic and advanced education |
| Limited expectation in the health-care delivery system | Institutionalize in nursing documentation, collaborate with other health-care providers |

### Table 2: Example of existing areas in basic nursing curriculum that could be expanded to include cancer-related content

| Curriculum area                                      | Specific topic                                                                 |
|------------------------------------------------------|-------------------------------------------------------------------------------|
| Health promotion, follow-up in specialty courses (e.g., maternity) | Risk factors, screening, and prevention                                       |
| All clinical courses                                 | Evidence-based practice, opportunity for clinical experience                   |
| Pharmacology, medical–surgical, and specialty courses (e.g., mental health) | Treatment, immunization, and behavioral interventions                        |
| Medical–surgical, maternal health and specialty courses, health-care systems, nursing and midwifery issues courses | Guidelines implementation, best practices, and system changes                  |
targets were inserted as part of the UN Sustainable Development Goals, thus intrinsically linking cancer care and control with the global development agenda. These macro policy developments offer nurses’ opportunities to demonstrate leadership in addressing cancer care needs and reaching targets through education, policy, practice, and research. As the largest group of healthcare professionals, nurses should not only have a seat at the table, but also they should be well positioned to lead the discussions. That is my vision for professional development of oncology nurses.

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