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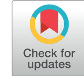
Commentary

The geriatric Asia-Pacific oncology nursing imperative



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Cancer is a disease of aging. Globally, more than half of all malignancies are diagnosed in those aged 65 and older (Fig. 1). This aging corollary, however, presents a major quandary. The unique needs of the older majority have not been identified nor acted upon similar to those of the young. Yet, both developmental subsets at the extremes of age are characterized by heightened vulnerability and require special consideration.

The 'Silver Tsunami'

The world is aging at an exponential rate. In the Asia-Pacific region, the proportion of older adults was 9.8% of the total population in 2017. By 2030, the number is expected to rise to 13.7%, and 20.3% by 2050.[1] At this juncture, Japan, China, and Hong Kong will hold the global distinction of having the largest percentage of older adults over age 80.[2] Additionally, it is projected that eighty percent of the world's elders will reside in low- and middle-income countries where only marginal resources will likely be allocated for aged care.[3]

The contemporary seismic shift in the world's populace has been characterized as the 'Silver Tsunami'. It is the most significant social phenomenon of the 21st century as it represents the first time in modern history that the old outnumber the young.[2,4] In large part, the escalating cohort of 'Baby Boomers' (ie, those born in the developed world following World War II) have driven this novel reality. Additionally, global improvements in public health, socioeconomic lifestyle enhancements, and a plethora of scientific discoveries, have not only resulted in a rise in the number of older adults but also of their life expectancy.[5] There are significant societal ramifications evolving within our progressively aging world that must be considered.

A heightened prevalence of chronic illness will parallel escalating numbers of older adults. This will require more informal support provided by lay family caregivers in the absence of subsidized professional services that augment care at home. However, due to declining birth rates, geographic mobility, and more women in the workplace, considerably fewer family members will be available to render needed care.[5] Additionally, it is likely that multiple elders will reside in one household magnifying the need for home-based caregiving assistance. Thus, a wide range of family dilemmas is anticipated.[6,7]

The demand for a health care workforce with gerontologic expertise will also be necessitated. However, despite this need, the field of gerontology is not a specialty where interdisciplinary professionals' interest has increased over recent years. Novel age-tailored pharmacotherapeutics, supplies, equipment, and technology will be required to address deficits in functional performance, cognitive capacity, and social interaction.[8] In the absence of proactively planning for the imminent health care needs of a growing elder population, the cost of future aged care will overwhelm some economies.

The Asian 'Silver Tsunami'

Asia is the world's aging epicenter. Considerable diversity economically, linguistically, and culturally, characterizes this global expanse not only among countries but within domestic boundaries.[9,10] Currently, Japan has the largest percentage of older adults (28.2%, nearly one in three Japanese) and nine Asia-Pacific countries have life expectancies greater than the universal average of 73.4 years (Table 1). Also of note is a projected tripling in the number of older adults aged 80 and above (commonly referred to as the 'Oldest Old') in Asia-Pacific countries.[11,12] Delineation of issues and needs specific to elder groupings (ie, young old, old, oldest old) similar to pediatrics (ie, infant, toddler, pre-school). What then are the novel implications of this growing aging paradigm for Asia-Pacific oncology nurses? Consider the following.

The Asia/aging/cancer trilogy

In 2020, sixty percent of the global population resided in Asia where one-half of all malignancies were diagnosed and nearly two-thirds of all cancer deaths occurred.[13] Currently, four malignancies predominate in both incidence and mortality among sexes. These include lung, colorectal, stomach, and liver primary cancers.[14–16] Japan and Korea are distinguished by having the highest per capita cancer incidence. Twenty-four percent of all East Asian cancer cases were diagnosed in China alone where three-quarters of new diagnoses and deaths occurred from female malignancies.[17,18] As an exemplar, Fig. 2 depicts current and future cancer prevalence by tumor type in China. This prototype of

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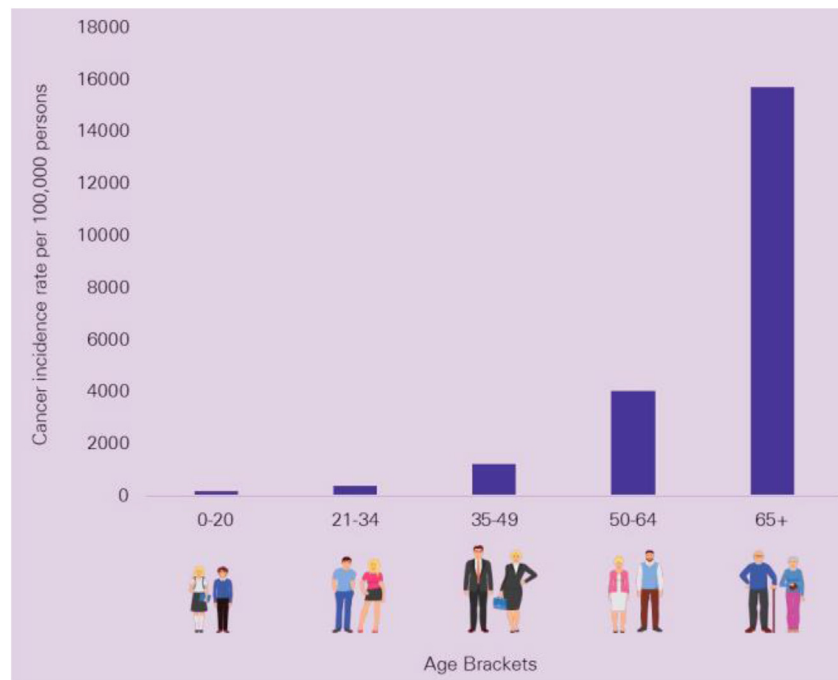

Fig. 1. Cancer incidence in the world by age groups.
Source: KPMG Services Pte. Ltd. (2022). *When Cancer Grows Old: Assessing the Socio-Economic Burden of Cancer and Ageing and the Policies Required.* On behalf of the International Society of Geriatric Oncology (SIOG); accessed 9/15/23.

escalating cancer frequency over time will likely be replicated in other Asia-Pacific countries.

Addressing a plethora of barriers to care is key to reducing cancer's affront within this diverse continent. Impediments include the existence of geographical obstacles that hinder the delivery of education and the provision of screening and therapy. Pervasive cancer-specific stigma, perceptions of fatalism, illiteracy, non-adherence, and cost issues, are other deterrents.[19,20] Debility associated with advanced age and co-morbidity may also be a factor in accessing care. Due to the scope of cancer specific to older adults, and the myriad of conditions interfering with essential care, there are two key imperatives for Asia-Pacific oncology nurses to contemplate.

Priority #1: Augment Oncology Nursing Knowledge and Skills with Gerontologic Nursing Education

Comprehensive education for nurses is the most constructive intervention to drive needed change.[21] Hence, the first imperative is the translation and integration of principles and practices of elder care into existing oncology nursing fundamentals. This will require considerable effort as most undergraduate nursing programs (not just in Asia but worldwide) do not address the special needs of the old as they do the young in education and training.[8] Continuing education efforts that build on existing knowledge requires recognition that older adults with cancer are a highly heterogeneous group based on physiologic age, performance status, degree of co-morbidity, availability of social support, and coping norms.[22] Knowledge is required to understand age-related changes which influence both the pharmacokinetics and pharmacodynamics of drug metabolism, and their association with organ toxicity and symptom management. The use of specialized geriatric assessment can help determine age-related sequelae such as functional impairment, polypharmacy, degree of available social support, and cognitive impairment which influence the older cancer patients' oncologic experience.[23] Identification of cumulative loss accompanying advanced age is a common psychosocial challenge to address within teaching curriculums. These novel geriatric constructs require their superimposition onto the nurses' existing oncology knowledge base. Hence, effective critical thinking and problem-solving in geriatric oncology nursing requires a blended composition of knowledge and skills.

Table 1
Asia-Pacific countries with life expectancies over the global average (73.4 yrs).

Country	Life expectancy
Hong Kong	85.83
Japan	84.95
Singapore	84.27
South Korea	84.14
Taiwan	81.47
Thailand	79.91
China	78.79
Malaysia	76.42
Vietnam	74.74

Source: Worldometers.info/demographics/life-expectancy/# countries-ranked-by-life expectancy; accessed: 8/26/23.

Priority #2: Develop and Integrate Expertise in Cancer Prevention and Control

Many risk factors for common cancers in the Asia-Pacific region (ie, tobacco, alcohol, diet) are known and modifiable with behavior change. Older adults' decades of exposure to potential carcinogens heightens their risk for a cancer diagnosis in late life. The evolution of solid tumors (common in older adults) takes decades to progress before symptoms appear. Screening interventions may identify early stages of the malignancy when the tumor burden is lower and treatment efficacy is higher. Hence, the second imperative for Asia-Pacific oncology nurses' to consider incorporating into their role is expertise in cancer prevention and control.[24,25] This broad domain encompasses general community-based education about cancer, delineation of interventions to avoid or cease risk behaviors, motivational strategies to promote adherence to healthy lifestyles, identifying and removing barriers to screening, and interpreting test results in a manner amenable to the lay persons' understanding. To this end, it is important for Asia-Pacific oncology nurses to keep current on data describing both trends and timely findings of cancer incidence and mortality facts specific to their

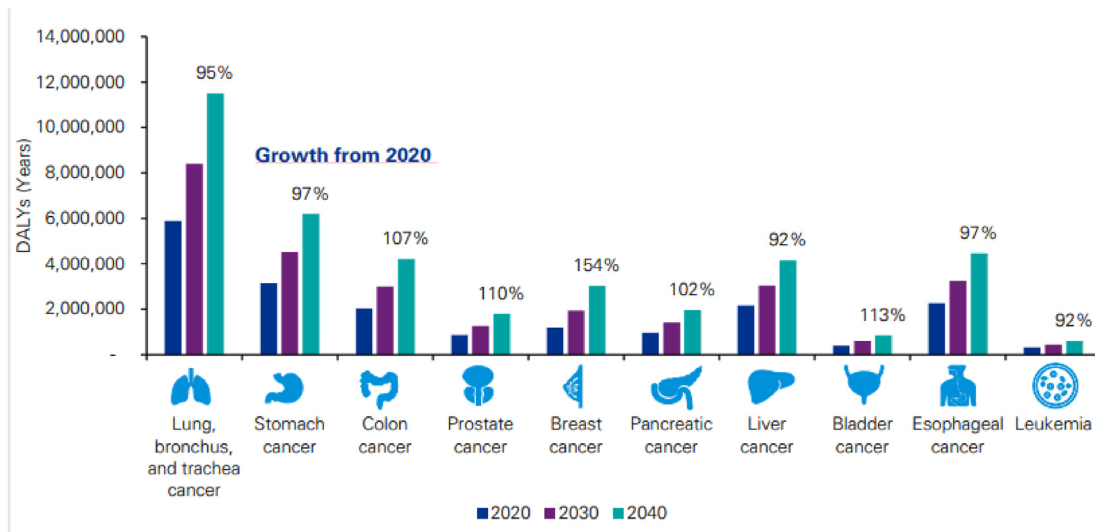

Fig. 2. China's cancer burden by tumor type, 2020–2040.
Source: KPMG Services Pte. Ltd. (2022). *When Cancer Grows Old: Assessing the Socio-Economic Burden of Cancer and Ageing and the Policies Required.* On behalf of the International Society of Geriatric Oncology (SIOG); accessed 9/15/23.

country as these findings influence domestic cancer control efforts.

As an exemplar, Table 2 presents recent cancer statistics for Korea. The prominence of solid tumors (most commonly diagnosed in older adults) is apparent. Other findings extrapolated from these country-specific findings include:

- Overall, Korean men have both a higher cancer incidence and mortality rate than women;
- Lung and colorectal cancers are prominent in both incidence and mortality amongst sexes;
- Men are more likely to be diagnosed with, and die from, stomach and liver cancers;
- While pancreatic cancer is infrequently diagnosed in Korea, it is a shared cause of cancer-related death in men and women;
- The gallbladder is not a usual site of cancer, but it is a prominent cause of death;
- Thyroid cancer is predominantly a female malignancy;
- While prostate cancer is the most common cancer in Korean men, it generally is not fatal; and,
- Breast cancer is the most common cancer diagnosis in Korean women and is the most frequent cause of cancer-related death.

Table 2
2023 Estimate rankings of five leading cancer types by incidence, mortality, and sex in Korea.

Sex	Incidence		Mortality	
Male	**Total = 144,379**		**Total = 49,730**	
	1	Prostate	**1**	Lung
	2	Lung	**2**	Liver
	3	Colorectal	**3**	Colorectal
	4	Stomach	**4**	Pancreas
	5	Liver	**5**	Stomach
Female	**Total = 128,697**		**Total = 31,629**	
	1	Breast	**1**	Lung
	2	Thyroid	**2**	Colorectal
	3	Colorectal	**3**	Pancreas
	3	Lung	**4**	Breast
	4	Stomach	**5**	Gallbladder

Adapted from: Jung K, Kang M, Park E, Yun E, Kim H, Kong H, Im J, Seo H. Prediction of cancer incidence and mortality in Korea, 2023. **Cancer Res Treat.** 2023; 55(2): 400–407.

Knowing these facts can help oncology nurses focus their awareness on prominent country-specific malignancies. It often aligns with cancer control initiatives to reduce both the incidence and severity of individual cancers. This information needs to be conveyed to the lay community to enlighten them about the scope of cancer in their country.

The prevention focus within cancer care is ideally suited for oncology nurses' mastery. Nurses are perceived as highly credible teachers. Their expertise, historically implemented at the bedside, is transferable to new settings such as the lay community. Using evidence concerning older adults' self-management practices can heighten the likelihood that the delivery of education will be tailored to older adults' needs and preferences.[26] The oncology nurse as cancer control community educator is an excellent example of expanding traditional oncology nursing roles in response to current trends and future projections.[27] Thus, considering Asia-Pacific oncology nurses' potential novel efforts to extend their influence into the community, I suggest the following.

Strategic planning considerations

Any goal to reduce cancer's burden requires the strong voice of the oncology nurse to maximize collaboration.[28] This entails intradisciplinary cooperation amongst nurses and interdisciplinary fellowship with professional colleagues. Thus, a consistent working mantra related to this expansive gero-oncology initiative should be, "Think team versus individual".

Nurse-to-nurse consultation and sharing of experiences is very beneficial. Reviewing not only outcomes but processes that worked (or didn't), can facilitate optimum program design of new endeavors. Such may be the case for learning from others' experiences in Asian countries that offer community cancer screenings.[29–33] Collective citywide or regional efforts amongst oncology nurses leverage a larger workforce which ultimately reaches more people in the community. Collaborating with nursing faculty increases the likelihood that program design is optimized and outcome measures are incorporated. The inclusion of professional colleagues with complementary health care expertise is also crucial (ie, nutrition specialists when addressing dietary modifications, physical therapists when exercise regimens are recommended, counselors, and addiction specialists with smoking cessation efforts). Also of note is evidence from community health research which advises that representatives from the target population whose behaviors require modification, be co-partners in planning. This strategy is perhaps the most important element to consider.

Enhancing Asia-Pacific nurses' gero-oncology competence is not an option – it is an absolute necessity.[34] The likelihood of an adult oncology nurse never having to care for a cancer patient over age 70, is 0%. Just as pediatric nurses choosing to sub-specialize in the care of children with cancer require special education and training, such is the case for the majority of oncology nursing who work with an adult population. Educating both the lay community and the nursing workforce are major imperatives. Within this context of elder care, nurses need supplemental education to advance their oncology nursing expertise within multiple new realms (ie, behavioral psychology, public health, family and community systems). Learning needs assessments are extremely valuable to prioritize education.[35] The community requires factual education to mitigate their fear and avoidance of cancer. Promising data about the benefits of early detection can foster hope and counter fatalism. A deliberative affront of common misperceptions and misinformation has two positive outcomes. It can reduce barriers to the early recognition of symptoms and it has the potential to influence choices to change risky personal behaviors.

Within the scope of older adult cancer care, it is imperative that nursings' advocacy voice speaks strongly and broadly to the authenticity that cancer is a family disease. The education and support of caregivers must be included in the provision of elder-focused care. Lay family caregivers should not be expected to render proxy nurse, physician, pharmacist, social worker, or physical therapist care in the absence of training and support.[36] This is especially true if the primary family caregiver is an older adult with their own health issues to manage.[5] This message is crucial to optimize care. Inclusion and support of family caregivers within the gero-oncology paradigm is not an option. Rather it is an absolute necessity.

A view of Asia-Pacific geri-oncology nursings' future

This Commentary is meant to be a 'Call to Arms' for Asia-Pacific oncology nurses to advocate for, and intervene with, their elder citizenry. To both validate and mobilize this initiative, an important reminder is in order. If you currently practice with an adult cancer patient population, whether you realize it or not, you are a geriatric oncology nurse.

I am hopeful that you, my Asia-Pacific oncology nurse colleagues, will undertake this opportunity to champion this much-needed focus on older adults with, and at risk for, cancer. Thus, feeling positive about your future innovations within this specialized realm of oncology nursing care, here are some publications I look forward to reading in *Asia-Pacific Journal of Oncology Nursing*. A bibliography of recent literature specific to cancer in older adults in the Asia-Pacific and associated nursing issues is provided in the Appendix.

- *Impact of the Taiwanese Geriatric Oncology Nursing Consortium's home support intensive on the reduction of hospitalization and emergency care rates in older adults post-gastrectomy;*
- *An intergenerational model for education dissemination – Seoul oncology nurses co-design curriculum with middle school teachers on cancer prevention – Exploring the impact of adolescent school children as potential influencers of parents and grandparents lifestyle behaviors;*
- *Vietnamese government supports outreach efforts to remote regions to enhance cancer awareness through oncology nurse-led education and screening;*
- *Geriatric assessment identifies functional impairment impeding self-care in older men undergoing radiation therapy for lung cancer: Singaporean oncology nurses identify the need for, and benefit from, physical therapy intervention;*
- *The Hong Kong Oncology Nursing Faculty Collaborative (HKONFC) results from the first cohort of Geriatric Oncology Resource Nurses' impact on clinical care in acute medical oncology settings.*

Declaration of competing interest

The author has none to declare.

Ethics statement

Not required.

Declaration of Generative AI and AI-assisted technologies in the writing process

No AI tools/services were used during the preparation of this work.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.apjon.2023.100319.

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