Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Current Perspective

COVID-19, palliative care and public health

Gary Rodin a,b,c,*,1, Camilla Zimmermann a,c,d,1, Danielle Rodin e,f,2, Ahmed al-Awamer a,g,3, Richard Sullivan h,4, Charlotte Chamberlain i,5

a Department of Supportive Care, Princess Margaret Cancer Centre, University Health Network, Toronto, Ontario, Canada
b Department of Psychiatry, University of Toronto, Toronto, Ontario, Canada
c Global Institute of Psychosocial, Palliative and End-of-Life Care (GIPPEC), University of Toronto and Princess Margaret Cancer Centre, Toronto, Ontario, Canada
d Department of Medicine, University of Toronto, Toronto, Ontario, Canada
e Radiation Medicine Program, Princess Margaret Cancer Centre, University Health Network, Toronto, Ontario, Canada
f Department of Radiation Oncology, University of Toronto, Toronto, Ontario, Canada
g Department of Family and Community Medicine, University of Toronto, Toronto, Ontario, Canada
h Institute of Cancer Policy and Conflict and Health Research Group, School of Cancer Sciences, King’s College London, London, United Kingdom
i Population Health Sciences, Bristol Medical School, Bristol, United Kingdom

Received 15 May 2020; accepted 22 May 2020
Available online 9 July 2020

KEYWORDS
COVID-19; Palliative care; End-of-life care; Public health; Global health; Health equity; Cancer; Oncology;

Abstract   The lack of integration between public health approaches, cancer care and palliative and end-of-life care in the majority of health systems globally became strikingly evident in the context of the coronavirus disease 2019 (COVID-19) pandemic. At the same time, the collapse of the boundaries between these domains imposed by the pandemic created unique opportunities for intersectoral planning and collaboration. While the challenge of integration is not unique to oncology, the organisation of cancer care and its linkages to palliative care and to global health may allow it to be a demonstration model for how the problem of integration can be addressed. Before the pandemic, the large majority of individuals with cancer in need of palliative care in low- and middle-income countries and the poor or marginalised in...
high-income countries were denied access. This inequity was highlighted by the COVID-19 pandemic, as individuals in impoverished or population-dense settings with weak health systems have been more likely to become infected and to have less access to medical care and to palliative and end-of-life care. Such inequities deserve attention by government, financial institutions and decision makers in health care. However, there has been no framework in most countries for integrated decision-making that takes into account the requirements of public health, clinical medicine and palliative and end-of-life care. Integrated planning across these domains at all levels would allow for more coordinated resource allocation and better preparedness for the inevitability of future systemic threats to population health.

© 2020 Elsevier Ltd. All rights reserved.

1. Introduction

The lack of integration between public health approaches and clinical care is a challenge for the majority of health systems globally. This became strikingly evident in the context of coronavirus disease 2019 (COVID-19), in which most cancer treatment centres struggled to meet their concurrent responsibilities to protect patients and staff, to prevent community spread, to deliver cancer care and to ensure access to acute care and to palliative and end-of-life care. Although the organisational structure, preparation and agility of some centres to respond to the challenges of the pandemic has been impressive [1], the absence of an integrated framework for coordination and decision-making across public health and clinical medicine often limited the flexibility and capacity to respond to the COVID-19 pandemic [2].

Paradoxically, the collapse of boundaries between the domains of public health and clinical medicine in this ‘war on two fronts’ [3] has created a unique opportunity for intersectoral collaboration and planning. Building upon this momentum holds the possibility of greater success from efforts to narrow the gap between these two domains, as well as between palliative care and both mainstream medicine and public health. The challenges of integration are not unique to oncology, but the organisation of cancer care and its linkages to palliative care and to global health may allow it to be a demonstration model for how the problem of integration can be addressed.

2. The silos of clinical medicine and public health

Societal factors and the effectiveness of public health measures importantly frame the nature and prevalence of disease, although the compartmentalisation of medical practice and public health has often obscured this connection. Integrated care within oncology and palliative care would include a balance of attention to the disease, the person and the social context [4], just as the widened scope of public health now embraces the physical, biological and social sciences to achieve ‘health for all’ [5]. Despite the common aims, however, palliative care has often been relegated to the margins of mainstream medicine and public health [6]. The severe symptom burden, social isolation and solitary deaths of those with severe COVID-19 infections have been a dramatic reminder of its importance and that of human connection in the context of advanced disease.

Before the pandemic, the large majority of those in need of palliative care in low- and middle-income countries (LMICs) and the poor or marginalised in high-income countries were denied access [7]. This inequity in access to palliative care has been highlighted with cancer because of the growing prevalence of this disease in LMICs and of deaths related to it [8]. It has been amplified by the pandemic, as individuals in impoverished and population-dense settings with weak health systems and vulnerable groups, such as the homeless, migrants, the elderly and psychiatrically ill, are more likely to become infected, to have less access to food, medical care and means of communication and to die as a result of COVID-19 infection [9–12]. These vulnerable groups are also most likely to be affected by the economic consequences of the pandemic on their physical and mental health and risk of suicide [13]. Such inequities deserve attention, not only by government and financial institutions but also by decision makers in health care. However, there has been no framework in most countries of the world for the integrated decision-making that is required for a pandemic such as COVID-19 or for recovery from it [14]. Such a framework is also needed in many regions to resolve the tension that is now emerging between the desire to protect society from spread of the virus and that to limit its dire economic consequences [15].

3. Interdisciplinary and transnational collaborative solutions

In this era of super-specialism in health care, funding and attention to public health and to the wider social determinants of health have been at risk. The COVID-
The COVID-19 pandemic is a dramatic reminder of the need for interdisciplinary, transnational and supranational approaches to address the causes, consequences and containment of disease [10,16]. This includes measures to support the economic, psychological and physical well-being of patients, families and healthcare providers managing disease. It also includes acknowledgement of our own interconnectedness in order to limit disease transmission and to prevent marginalisation of those facing rapid disease progression and death in the context of social isolation. Strategies to ensure sustained integration may prevent the siloed response to the pandemic that has so far hindered distribution of resources to areas of greatest need. Integrating public health in decision-making for health resource allocation, including in palliative care, would be a radical leap for many health systems but would help to redress the health inequity that has been highlighted by the COVID-19 pandemic. Such integration of public health, governmental and transnational approaches with clinical medicine would facilitate a more comprehensive COVID-19 exit strategy and preparedness for the inevitability of future viral pandemics and other systemic threats to population health.

In 2020, a group of palliative care, health policy and global health and oncology experts convened a working group to design an international event — Palliative Care, Culture and the Clinic — to be held in Toronto, Canada. This will help to forge new collaborations and ways of understanding the impact of health systems, and political, economic and sociocultural factors on the practice of palliative care. The COVID-19 pandemic subsequently highlighted the relevance of the broader geopolitical forces that will have an impact on palliative care in the post—COVID-19 era. This event will be held online in January 2021, and will take into account how competing economic, academic and cultural values shape priorities, decision-making and access to cancer care and to palliative and end-of-life care. This event is intended to facilitate dialogue and collaboration to determine how integration and collaboration across sectors in research, education, health policy, resource allocation and clinical care can help to achieve more equitable access to high-quality palliative and end-of-life care across culturally, economically and geographically dispersed populations. The achievement of this aim may be regarded as a barometer of success, not only in integration and collaboration across sectors, but also in the extent to which the relief of human suffering is taken as seriously as the treatment of disease.

**Conflict of interest statement**

All authors declare no conflicts of interest.

**Role of the funding source**

This publication did not receive any specific grant support from funding agencies in the public, commercial or not-for-profit sectors.

**References**

[1] Kim CS, Lynch JB, Cohen S, Neme S, Staiger TO, Evans L, et al. One academic health system’s early (and ongoing) experience responding to COVID-19: recommendations from the initial epicenter of the pandemic in the United States. Acad Med 2020. https://doi.org/10.1097/ACM.0000000000003410 [Published online ahead of print, 2020 April 9].

[2] Armocida B, Formenti B, Ussai S, Palestra F, Missoni E. The Italian health system and the COVID-19 challenge. Lancet 2020; 5:e253. https://doi.org/10.1016/S2246-2667(20)30074-8.

[3] Kutikov A, Weinberg DS, Edelman MJ, Horwitz EM, Uzzo RG, Fisher RI. A war on two fronts: cancer care in the time of COVID-19. Ann Intern Med 2020;172(11):756–8. https://doi.org/10.7326/M20-1133.

[4] Kaasa S, Loge JH, Aapro M, Albreht T, Anderson R, Bruera E, et al. Integration of oncology and palliative care: a Lancet oncology commission. Lancet Oncol 2018;19(11):e588–653. https://doi.org/10.1016/S1470-2045(18)30415-7.

[5] Detels R, Tan CC. The scope and concerns of public health. In: Detels R, Gulliford M, Karim QA, Tan CC, editors. Oxford textbook of global public health. 6th ed. New York: Oxford University Press; 2015. p. 62–99 Available at: https://global.oup.com/academic/product/oxford-textbook-of-global-public-health-9780199661756?cc=ca&lang=en&.

[6] Clark D. From margins to center: a review of the history of palliative care in cancer. Lancet Oncol 2007;8(5):430–8. https://doi.org/10.1016/S1470-2045(07)70138-9.

[7] Knaul FM, Farmer PE, Krakauer EL, De Lima L, Bhadelia A, Kwete XJ, et al. Alleviating the access abyss in palliative care and pain relief—an imperative of universal health coverage: the Lancet Commission report. Lancet 2018;391(10128):1391–454. https://doi.org/10.1016/S0140-6736(17)32513-8 [Published correction appears in Lancet 2018 Mar 9].

[8] Hannon B, Zimmermann C, Knaul FM, Powell RA, Mwangi-Powell FN, Rodin G. Provision of palliative care in low- and middle-income countries: overcoming obstacles for effective treatment delivery. J Clin Oncol 2016;34(1):62–8. https://doi.org/10.1200/JCO.2015.62.1615.

[9] Tsai J, Wilson M. COVID-19: a potential public health problem for homeless populations. Lancet Public Health 2020;5(4):e186–7. https://doi.org/10.1016/S2468-2667(20)30053-0.

[10] Hargreaves S, Zenner D, Wickramage K, Deal A, Hayward SE. Targeting COVID-19 interventions towards migrants in humanitarian settings. Lancet Infect Dis 2020;20(6):P645–6. https://doi.org/10.1016/S1473-3099(20)30292-9 [Published online ahead of print, 2020 Apr 21].

[11] Ahmed F, Ahmed N, Pissarides C, Stiglitz J. Why inequality could spread COVID-19. Lancet Public Health 2020;5(5):e240. https://doi.org/10.1016/S2468-2667(20)30085-2.

[12] Yao H, Chen JH, Xu YF. Patients with mental health disorders in the COVID-19 epidemic. Lancet Psychiatry 2020;7(4):e21. https://doi.org/10.1016/S2215-0366(20)30090-0.
[13] Kawohl W, Nordt C. COVID-19, unemployment, and suicide. Lancet Psychiatry 2020;7(5):389–90. https://doi.org/10.1016/S2215-0366(20)30141-3.

[14] Al-Shamsi HO, Alhazzani W, Alhuraiji A, Coomes EA, Chemaly RF, Almuhanna M, et al. A practical approach to the management of cancer patients during the novel coronavirus disease 2019 (COVID-19) pandemic: an International Collaborative Group. Oncol 2020;25(6):e936–45. https://doi.org/10.1634/theoncologist.2020-0213 [Published online ahead of print. 2020 Apr 27].

[15] Michie J. The covid-19 crisis — and the future of the economy and economics. Int Rev Appl Econ 2020;34(3):301–3. https://doi.org/10.1080/02692171.2020.1756040.

[16] Bozorgmehr K, Saint V, Kaasch A, Stuckler D, Kentikelenis A. COVID and the convergence of three crises in Europe. Lancet Public Health 2020;5:e247–8. https://doi.org/10.1016/S2468-2667(20)30078-5 [Published online 2020 April 3].