Special Article

Economic Benefits of Investment in Palliative Care: An Appraisal of Current Evidence and Call to Action

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Abstract

Background. World Health Assembly Resolution 67.19 affirms that palliative care is an ethical responsibility of health systems and urges member states to ensure domestic funding. Yet, even in countries with established services, palliative care is often fragmented and underfunded, with limited government support.

Aim. The aim of this special article is thus to present a health economic appraisal of palliative care, building on established evidence of its clinical benefits.

Methodology. Under the auspices of the World Health Organization, a multidisciplinary, international team of palliative care researchers, global health experts and health economists conducted a literature review addressing six themes: current health financing for advanced illness, models of palliative care, cost savings for health systems and households, improved patient and caregiver outcomes, and strategies for sustainable financing.

Results. Results show that palliative care can prevent catastrophic health expenditures for families, increase efficiency in use of health resources, and support integration within national health systems. Palliative care also facilitates monitoring of service costs and enables the development of effective financing frameworks.

Conclusion. This review offers practical guidance for policymakers, funders, and health system leaders to integrate palliative care into universal health coverage schemes. It underscores the dual imperative—ethical and economic—of investing in palliative care to promote equity and sustainability in health care delivery. J Pain Symptom Manage 2025;000:1−13.

Key Words

Palliative care, cost savings, health system, improved patient outcomes, efficient use of health resources, integration

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Accepted for publication: 11 September 2025.

0885-3924/$ - see front matter
https://doi.org/10.1016/j.jpainsymman.2025.09.020

Background and Introduction

The article has been adapted from a technical brief developed under the auspices of the World Health Organization (WHO). The technical brief aimed to provide a practical, usable resource to empower policymakers at international, national and local levels, health facility managers and funders to support the integration of palliative care into health services and health financing policies. The article intends to make this information more accessible in the light of the fact that governments have agreed to integrate palliative care into health systems and commit to domestic fudning for this purpose, but have not yet made this happen, possibly because they lack guidance in how to adapt and implement funding mechanisms for palliative care.

The World Health Assembly (WHA) resolution 67.19 on the "Strengthening of palliative care as a component of comprehensive care throughout the life course" states that palliative care is "an ethical responsibility of health systems."[1]

The Global Atlas of Palliative Care (second ed., 2020) reported that only 12% of the 53 million adults worldwide that need palliative care are currently receiving it.[2] The inequities reported in the Global Atlas are noted in the 2022 INCB Report on the availability of internationally controlled substances: No Patient Left Behind. The report states that despite the international commitment to availability of controlled substances, there is still a "significant imbalance" in this availability globally. This imbalance "goes against the aim of the international drug control conventions to promote health and welfare of humankind" and "also contradicts numerous human rights instruments that contain the right to health . . . which also encompasses palliative care."[2]

Where palliative care is available, even in countries with relatively well-developed palliative care the provision is often patchy and uneven. The EAPC Atlas of Palliative Care 2025 reported that "accessibility and integration into European health-care systems remain inconsistent."[3,4] It is funded primarily through nongovernmental organizations, with limited or absent core domestic/government funding allocated towards this care.[5]

A projection of palliative care need published in The Lancet in 2019 reports that "By 2060, an estimated 48 million people (47% of all deaths globally) will die with serious health-related suffering, which represents an 87% increase from 26 million people in 2016.″[6]

The 2030 Agenda for Sustainable Development describes that through universal health coverage in SG3.8 "all people have access, without discrimination, to nationally determined sets of the needed promotive, preventive, curative, rehabilitative and palliative essential health services, and essential, safe, affordable, effective and quality medicines and vaccines, while ensuring that the use of these services does not expose the users to financial hardship. . ."[7]

This article summarizes the conclusions of a number of researchers active in palliative care and health economics and makes the economic case for palliative care. We examine evidence that, in addition to mitigation of serious health related suffering and improvement of quality of life individuals of all ages who have access to palliative care, cost savings can be made. The benefits of palliative care are described extensively in palliative care literature. These include control of distressing symptoms, emotional support, exploring patients preferences for care, providing spiritual care and improving quality of life. Research has used patient reported outcomes to measure these improvements in quality of life which are outcomes not measured in conventional cost-effectiveness analyses. These cost savings are relevant both for at health system level, and at household level, for patients and family caregivers and dependents. Evidence that cost savings can be achieved while providing quality palliative care to people living with serious illness can provide added incentive to health managers and policy makers to mainstream these services into national health plans. While there is compelling evidence of the effectiveness and cost-effectiveness of palliative care, there remains a need to strengthen substantially our understanding of benefits and costs toward more integrated, comprehensive care models, particularly in low and middle income countries.

Living with and dying from serious, life-limiting illness is expensive, in every country, regardless of whether the country is low-, middle- or high-income.[8] It is critically important to ensure that resources used at this time in a person's life focus on providing the best experience for the patient and their family, avoiding, wherever possible, further impoverishment and the burden of inter-generational debt.[9,10]

High level recommendations on integrating palliative care into health systems to achieve universal health coverage (UHC) include a notional commitment from governments for domestic funding for palliative care.[1,11] Palliative care is recognised as an essential component of both primary care and specialized care that should be accessible at all levels of health care systems, including in patients' homes. Palliative care is applicable "early in the course" of a serious illness and should be integrated with and complement prevention, early diagnosis and treatment of serious or life-limiting health problems,[12,13] Palliative care is relevant for and should be available to, all ages, including for neonates, children, young people, adults and the elderly.[13]

This paper aims to appraise and summarise the evidence that quality palliative care achieves cost savings to both the health system and to patients and families as well as providing benefit to patients and families. We also provide recommendations on funding mechanisms for palliative care with practical examples. We close with a call to action for clinicians, policy makers and health planners and palliative care advocates to meet the urgent needs in global expansion of palliative care to provide services for those in need.

What are the Benefits of Palliative Care?

Progressive illnesses cause highly prevalent and burdensome psychological, physical, socio-economic and spiritual concerns for patients and their—predominantly female—family caregivers.[14−18] The nature of suffering in advanced disease and therefore, the outcomes that palliative care should seek to measure and improve has been well described.[19]

Palliative care focuses on improving quality of life by treating pain and other distressing symptoms including psychosocial and spiritual distress, and on addressing preferences for care in advanced disease.[20] Optimum palliative care services are based on local needs and may vary across the age range.[21−24] Palliative care is for those at all stages of life-limiting illness (and beyond death in the form of bereavement support) and across all ages including neonates, children, young people and adults.[25]

The palliative care needs of populations vary according to the local cultural, clinical and economic situation. A systematic review of context-specific palliative care needs in Africa found that palliative care needs included infection control, health literacy promotion, financial assistance, assistance in dealing with stigma and social isolation, and assistance with cultural and religious rites.[21]

Over 21 million children and young people (CYP) with life-limiting and life-threatening conditions could benefit from palliative care annually.[26] Of these, 97% reside in LMIC settings.[27] The complex symptoms and concerns experienced by CYP span domains of need: physical (e.g. pain, fatigue, nausea), existential or spiritual (e.g. wish to achieve life goals), psychological (e.g. anxiety, depression), and social (e.g. exclusion from social networks and education)[28,29] and they experience high service utilization and polypharmacy.[30] Palliative can relieve these symptoms and concerns and improve the quality of life of the children and their families.[31]

Costs of Healthcare With Advanced Disease

Costs of healthcare near the end of life are high across the globe.[32] Health care provided in the last year of life is known to account for a large proportion of these costs. Health system costs increase in advanced illness because of additional clinic visits, in-patient hospitalization, admission to intensive care units, and the impact of medication costs. Depending on national funding mechanisms, these costs, plus additional costs of transport, medication and caregiving, may require exorbitant out-of-pocket expenditure by patients and family members, often drawing on the resources of extended family networks.[9]

Data from the USA found that 25% of Medicare payments went to people in the last year of their life.[33] A report published in the UK in 2008 by the National Audit Office documented the cost of care for people with advanced diseases and reported that end-of-life care accounted for about 20% of hospital bed days.[34]

Studies that estimated the breakdown of health care costs in the last year of life in the USA, Ireland and England found very similar patterns, albeit the absolute costs reflected differences in overall costs in each country. They showed that monthly costs more than double in the last three months of life, and that around half of costs represented hospital care, while the component that addressed serious and distressing symptoms was relatively small.[32,35,36]

In LMICs, efforts by patients and families to seek treatment for incurable disease result in “staggering direct and indirect costs” to these patients and families.[37] Culturally, in many countries, families are expected to take sick relatives to hospital, or they may be perceived as having failed in the provision of care for their sick relative, especially if the sick relative is a child. The fact that clinicians may not recognize the stage of the illness or may be reluctant to communicate the progressive nature of the illness means that patients and families continue to seek curative treatment.[37] In a regional cancer centre (RCC) in India, close to 50% of children with cancer had received chemotherapy in the last week of their lives. The impact, in addition to the suffering inflicted by needless treatment, was also financial destruction of families.[38]

Catastrophic health expenditure results in generational poverty. This is worst in low- and middle-income countries and so financial support becomes necessary not only for treatment costs; but even for food, support for education of children of the family and vocational rehabilitation.[39] The WHO has reported that in Europe many househlods cannot afford the healthcare costs they face and face impoverishment due to out-of-pocket payments they have to make for healthcare, even in Europe’s wealthiest countries.[40] A number of studies have documented financial toxicity experienced by patients and caregivers[41−43] which has been measured by tools such as the Comprehensive Score for Financial Toxicity-Functional Assessment of Chronic Illness Therapy (COST-FACIT).[43] Out-of-pocket (OOP) expenses contribute to financial toxicity in both LMICs and HICs.[44] Comprehensive cancer care should include consideration of socio-economic wellbeing of patients and families to mitigate against financial toxicity.[44]

When Care is "Nonbeneficial" or "Futile"

As described above, the average costs of care rise towards the end of life and are highest in the last year of life.[32] This is largely due to costly health investigations and interventions such as surgery, dialysis, radiotherapy or chemotherapy, transfusions and admission to intensive care units. This high expenditure is driven by a relatively small proportion of patients who have very high levels of service use and cost with huge variation between individuals.[6,45] Estimates from Ireland suggest that just 10% of people near the end of life are responsible for over 60% of total end-of-life health and social care expenditures.[35] Whilst such interventions are appropriate and necessary when a condition can be reversed and patients are expected to recover to an improved health status, careful consideration is required if the expected outcome is either prolongation of suffering or death.[46]

Nonbeneficial treatment (NBT) denotes treatment that would offer "little or no hope of it having any effect" because of the nature of the patient's illness and poor prognosis.[46] Palliative care is appropriate in conjunction with disease-oriented care and provides guidance to recognize when a transition to palliative care alone is appropriate.[46] The literature suggests that palliative care provided at home or in a hospice can provide a better and preferred alternative for patients −adults, children and adolescents - rather than aggressive inpatient care.[25,46] Hospital care with goals of reversing illness may not be appropriate when a patient has a progressive illness without an expectation of cure or recovery. Palliative care assists clinicians and patients to understand the extent of the illness and treatment options such as symptom management, comfort care, and emotional and spiritual support within a framework to optimize quality of life. Studies show that where patients and families are supported in making choices by palliative care team, that there are fewer tests and interventions, better experiences and in some cases significantly lower costs. The usefulness of palliative care interventions is particularly marked when they occur early in the trajectory of care, where the patients have complex needs and where there is a diagnosis of cancer.[47−50] Reviews of economic evaluations of palliative care generally show that interventions are cost-effective.[51,52] For example, Huang et al. investigated medical costs in Taiwan for patients at the end of life using data from Taiwna's National health Insurance program. They concluded that hospice care can save end of life medical costs significantly, particularly when patients are referred early to hospice care.[53]

Reasons for NBT may include fragmentation in care provision, uncertainty of prognosis, a sense of duty to cure, family demands, lack of opportunity for end-of-life discussions or advance care planning, difficulty in discussing poor prognosis, communication failures between health professionals and patients (and family members), "a culture of doing everything possible even if against the patient's wishes," a perception of "death as treatment failure"[46] and, in children, prioritising the needs of the parents. There are often unrealistic social expectations for survival at all costs and perceived legal pressures may influence clinicians' decision-making about treatments in advanced disease. Wagstaff, Eozenou and Smitz' article on *Out-of-Pocket Expenditures* notes that some people "may receive and pay for unnecessary care, unaware that it is medically unnecessary."[39] NBT can be seen as an indicator of poor quality of care at the end of life and may inflict unnecessary suffering through needlessly aggressive treatment.

There may also be supply side drivers of NBT. Where private providers are remunerated on the basis of treatments or investigations carried out there is a direct incentive to provide services even when they may be of low value. Where a shift to greater inclusion of palliative care leads to lower expenditure on services with a curative intent, it must be recognised that some providers will see resources and provider incomes fall. This may lead to some resistance to such developments. The integration of palliative care into clinical practice requires a multidisciplinary, patient-centred approach with understanding of the benefits of palliative care by patient, clinician and health services.

Palliative Care Improves Patient Outcomes

Palliative care is not a "second best" or more expensive option. In some cases it has been shown to be associated with longer survival.[54] A Cochrane review of hospital-based palliative care identified evidence of benefits for several person-centred outcomes, including patient health-related quality of life, symptom burden and patient satisfaction with care, while also increasing the chances of patients dying in their preferred place (measured by home deaths).[55] While effect sizes were small, measures of person-centred outcomes may be of clinical relevance in advanced disease with limited prognosis. The review found no evidence of serious harm.[55] A clinical trial of community-based short-term palliative and supportive care intervention for older people living with chronic, noncancer conditions and frailty reported reduced symptom distress with decreased costs from the intervention.[56] In Kenya, a clinical trial of integrated HIV palliative care improved psychosocial problems, mental health and quality of life among patients.[57] In Uganda, a clinical trial of nurse led integrated MDR TB palliative care improved physical, pyschosocial and quality of life among patients.[58] In a study conducted in Singapore, which aimed to establish the longitudinal impact of a home-based care pediatric palliative care programme, the authors noted that patients receiving home-based paediatric palliative spent more time at home at the end of life, incurred less medical costs, had fewer admissions and better quality of life compared to the control group.[31]

It is recommended that clinicians become familiar with assessment methods to identify when a patient may benefit from palliative care such as palliative care indicator tools, assessment of performance status and geriatric scores.[46] Combined with communication skills, these tools may assist in reducing the use of non-beneficial treatments. In discussion with colleagues, patients and families, palliative care would recommend continuing or instituting disease modifying treatment if there is uncertainty regarding disease progression and prognosis. However, these discussions would provide space to consider withdrawal of treatment, if appropriate, and to focus on supportive interventions including palliative care.[46] A number of studies describe training in communication skills and how to undertake 'serious illness conversations."[59–62] These conversations have been shown to help patients with advanced illness regain a sense of purpose and of control and help clinicians provide care choices. Jacobsen et al. propose that including a systems wide focus on serious illness conversations be linked to an improved reimbursement system.[62] Research in the USA includes the study conducted by Zhang, Wright et al. that reported that patients who had experienced end-of-life conversations had significantly lower healthcare costs.[63] Wright et al. also reported that end-of-life discussions were associated with less aggressive medical care near death and earlier hospice referral.[64]

Conversations to identify patients' preferences for care aligns with research measuring Patient reported Outcome Measures (PROMs). The Lancet Commission on 'Alleviating the access abyss in palliative care and pain relief' supports the use of outcome measures to inform care and policy and reduce suffering in LMICs.[19] Data from patient-reported outcome measures (PROM) studies can be used in several ways: 1) within the individual clinical encounter; 2) as facility-level feedback to inform facility-specific quality improvement strategies; 3) nationally to inform national policymaking; 4) as an outcome for primary research to determine the cost-effectiveness of interventions.

Health Financing for Palliative Care

Globally, there are a variety of health financing mechanisms for healthcare. These include direct government financing (through taxation), insurance schemes (compulsory or voluntary), out-of-pocket payments by users and external aid.[65] When considering the patterns of health financing for advanced disease and end-of-life care, it is important to recognize the effects of different financing instruments on access to palliative care. Currently, financing for palliative care through charitable donations is common in countries even when this financing mechanism is not broadly seen elsewhere in the healthcare system.

The choice of financing mechanisms for health care generally and palliative care provides a mechanism for achieving policy goals. This requires that there are well thought out and well understood policy goals. The evidence on the usefulness and importance of palliative care provides a strong foundation for policy processes to include and enbed palliative care into policy goals. It is important that the extensive evidence on palliative care cost and benefits helps drive policy making and policy implementation.

In some countries, there may be financial incentives to continue aggressive treatment depending on private health insurance models. The impact of costs of healthcare on households is explored in the research literature under a heading of "financial toxicity," covering both objective and subjective experiences of financial impact of the costs of healthcare.[66]

Palliative care in some countries, such as those using co-payment models, may require a high proportion of costs needing to be met by out-of-pocket expenditure. Where high end-of-life costs are borne largely by families, a proportion of families are at risk of very high out-of-pocket expenditure, and a very high risk of impoverishment.[40] A scoping review of out-of-pocket expenses in low- and middle-income countries reported that patients with advanced disease and/or their families pay a high proportion of medical costs out-of-pocket and experience financial hardship.[67] Early evidence suggests that access to palliative care can reduce use of poor value care for these people.[35]

Although public funding of palliative care has increased, there remains a substantial role for charitable funding to support routine care in a number of high-income countries (e.g., Australia, England, Ireland). In many low- and middle-income countries public funding of palliative services is either very low or absent, with palliative care typically sitting alongside, rather than within, government health services, supported by donors and/or charitable funds. Reliance on charitable funding can hinder integration of palliative care into the health system, can be unsustainable and is often insufficient to meet the full extent of palliative care needs.

Country Examples of Health Funding Mechanisms for Integrated Palliative Care

Rwanda. Rwanda provides a good example of community-based insurance to fund palliative care services as described in the article on palliative care implementation in Rwanda[68]:

"In every village in Rwanda, there are three community health workers, elected by the villagers, who provide basic health services and promote access for all to the health care system.[69] Most basic health services, including palliative care, are covered by Rwanda's community-based health insurance system that subsidizes premiums and co-payments for the very poor. In January 2011, Rwanda's Ministry of Health became the first in Africa to issue a National Palliative Care Policy.[70] At the same time, it published a Five-Year National Strategic Plan for Palliative Care, as well as national standards and guidelines for the provision of palliative care, that are based on the African Palliative Care Association's Standards for providing quality palliative care across Africa.[70,71] According to the policy, ''all people, including children, living in Rwanda with a progressive life-limiting illness, their families, and caregivers will have access to a health system that provides high-quality palliative care services that are well coordinated, innovative and responsive to their needs in an affordable and culturally appropriate manner, by 2020″.[72]

Romania. Palliative care in Romania started from the nongovernmental sector with services being financed initially through charitable donations and international grants.[73] With the opening of the first inpatient unit in the public health care system, a funding mechanism was initially included in the National Frame Contract financed through the Romanian national insurance system. The mechanism was based on a costing process done both for home care and inpatient services in 2010.[74] The unit costs accepted by the national insurance system were based on a cost per day/occupied bed for the inpatient unit and a cost per visit for home-based palliative care.

The development of services was accelerated in 2016 when the World Bank included palliative care as a subcomponent of the project aiming to reform the Romanian health care system, with a budget of approximately € 1.2 million. A needs assessment was performed which highlighted gaps in care of patients with palliative care needs and a national strategy for palliative care was developed.[75] Based on this strategy, a new European project is currently being funded and run by a consortium of national stakeholders (the Ministry of Health and Ministry of Social Welfare, the Agency for Quality in Health Care, National Insurance House and Hospice Casa Sperantei) to implement the national palliative care strategy. This includes opening pilot centres in the country, providing combined home-based palliative care and palliative care outpatient clinics, and also to develop the national palliative care plan with a dedicated budget line that was due to come into force in January 2024.[76]

Understanding How Palliative Care Promotes Cost Savings for Health Related Expenditure

Research in both high- and low-income countries suggests that involvement of palliative care near the end of life can reduce health care costs from the perspective of the health system and patients' households.

Palliative care has the potential of reducing resource use and generating cost savings at a variety of levels through varied mechanisms.

1. Firstly, reducing resource use and associated costs of hospital inpatient admissions through:
    - (i) goals of care discussions and discharge planning result in shorter lengths of stay for people with serious illness;
    - (ii) better understanding of patient preferences may eliminate use of some high-intensity and high-cost diagnostic and treatment services that have limited efficacy near the end of life resulting in fewer nonbeneficial treatments;
    - (iii) improved pain and symptom control, and access to outpatient and home care services, reduces the risk of repeat hospital admissions.[36,77] Since hospital admissions account for a large portion of health care costs across the life course and into the last year of life, these reductions can represent very large savings for the system, as well as freeing up hospital capacity for other conditions/services.[77–79]
2. Secondly, palliative care offers improved value for money for health-expenditure for policy makers and planners. For example:
    - (i) integrating palliative care within oncology care in Malawi reported improvements in the quality of overall patient care by promoting patient-centred care.[80]
    - (ii) The use of patient-reported outcomes and active patient involvement in health decision-making result in improved symptom control and improved physical and mental health, thus reducing needs/costs for additional health care services.[81]
    - (iii) In high-income settings palliative care is also associated with a higher proportion of deaths in the patient's place of residence.[79] Several studies suggest that a home death aligns with patients' and families' wishes for end of a life and a so-called good death[79,80] as well as the co-benefit of a reduction in costs related to expensive hospital care including out-of-pocket payments. Cultural and religious factors need

more exploration, and additional costs of caring at home require careful description and reflection.[81,82]

Where costs are not reduced, the value equation is nevertheless improved by higher quality of care and better outcomes from the same resources.[82,83]

3. Delivering cost savings for patients, caregivers and households.

Living with incurable disease is a significant life event that affects not only the health but also the well-being and labour market participation of patients and family members. Informal caregivers are those who care, unpaid, for a sick family member or friend. Often, they have left their primary job or reduced their working hours to do so, and such caregiving causes significant loss of income[27] and can have negative health and wellbeing consequences on caregivers particularly when caring for children.[84]

How does palliative care impact caregivers' experiences and costs?

1. Palliative care, with its effect on improved symptom burden, may allow patients and/or informal cargivers to return to education and the work force.[85]
2. In addition, better physical and psychosocial symptom control, as well as improved functionality and mobility, result in patients having better quality of life and greater social activity and engagement.[82]
3. Paralegal involvement enables the drafting of wills and inheritance planning which can reduce impoverishment following death of the loved-one, by avoiding the practice, common in some countries, of "property grabbing."[86]
4. Additional programmes run by palliative care services can enable household caregivers to move forward into education and paid work in caregiving.[87,88]

For caregivers, these potential benefits exist not only during the lifetime of the person with serious illness but also in bereavement. For caregivers at risk of financial hardship, reducing this burden will improve caregiver and family quality of life and reduce their own health care costs in the future. Better experiences of serious illness, end of life care and bereavement have long-term health benefits for caregivers and family members, supporting holistic household well-being, ongoing schooling for dependents and employment for adult caregivers.[87,88]

Fig. 1 below depicts the impact of palliative care could have on breaking the cycle of health care seeking behaviour for a life-threatening illness, associated health care costs and household financial vulnerability.

Affordable Palliative Care: The Essential Package of Palliative Care (EPPC)

Palliative care itself is a package of simple interventions that can be delivered at low cost in a variety of settings: in patient homes, clinics, or hospitals, with the potential for cost-savings for the health system and families.[19,89,90]

The Lancet Commission on Palliative Care and Pain Relief created an important basis for making high-quality palliative care universally accessible and affordable

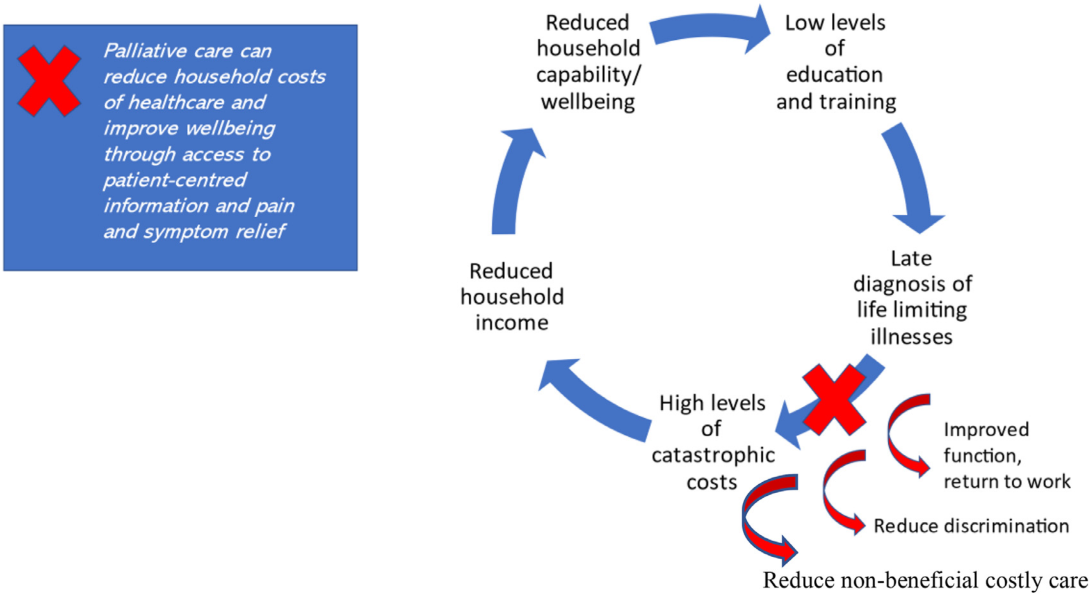

Fig. 1. The poverty trap: how household vulnerability is linked to worsening poverty risks following a diagnosis of life-limiting illness. How does palliative care may break the cycle?[80]

even in the poorest settings.[45,91] This included the following steps:

- Detailed estimates of the types, prevalence, severity, and duration of suffering associated with serious illnesses, and the number of people experiencing this suffering each year in every country. Using the available literature and an expert panel of palliative care specialist practitioners from all WHO regions and primarily from LMICs, a list was developed of the 21 illness conditions that most commonly generate a need for palliative care. A list was created of the specific types of physical, psychological, social and spiritual suffering experienced by patients with each condition, and estimates were made of the prevalence, severity and duration of each type of physical and psychological suffering associated with each condition.[19]
- Based on these lists and estimates, an Essential Package of Palliative Care (EPPC) was designed to prevent and relieve most of this suffering and to be affordable and simple enough to be universally accessible. The EPPC includes:
    - Safe, effective, and affordable medicines widely available on the world market.
    - Simple equipment.
    - Social supports for the very poor.
    - The necessary trained human resources.
    - Implementation models.
- Implementation of the entire EPPC was then costed in one low-income country (Rwanda), one lower-middle-income country (Vietnam), and one upper-middle-income country (Mexico)[19] (see Table 1). The cost estimates include estimates of the number of palliative care encounters at each level of the health care system needed to palliate each type of suffering associated with each condition.[19]

Costing of the Essential Package of Palliative care (EPPC)

The cost of implementing the EPPC in a low-income country (Rwanda), a lower-middle-income country (Vietnam), and an upper-middle-income country (Mexico), as calculated by The Lancet Commission are shown in Table 1.[19,90] Funding for social supports was not included in the calculations because it was assumed that it would come from antipoverty or social welfare programmes, rather than from health care budgets. Although these data are from 2015 and it would be useful to obtain funding to update the information, it is unlikely that there have been major changes since 2015.

The World Health Assembly resolution 67.19 on palliative care includes recommendations on integrating palliative care into health systems to progress towards UHC and also includes a commitment from member states for domestic funding for palliative care.[1] Currently investment in palliative care may not sufficiently reflect the potential benefits that PC services could bring to the health systems, patients and their families.

Table 1

Per Patient Cost of the Health Care Components of the Essential Package of Palliative Care adapted From the Lancet Commission on Palliative Care, 2018[28] USD 2015

	Rwanda[d]	Vietnam[e]	Mexico
Medicines	52	27	122
Morphine (oral or injectable)	20	14	*90*
Equipment	31	5	31
Palliative care team (HR)	121	78	584
Operational costs (8% of total	16	9	59
Total	**219**	**119**	**796**
% GDP[a] required to fund the EPPC for all patients in need	0.25	0.04	0.03
% total health expenditure required to fund the EPPC for all patients in need[b]	3.35	0.56	0.50
% government expenditure on health required to fund the EPPC for all patients in need[c]	8.79	1.04	0.97

Note: GDP = gross domestic product; HR = human resources.

[a] GDP, World Development Indicators, World Bank, http://data.worldbank.org/indicator/NY.GDP.MKTP.CD.

[b] Health expenditure, total (% of GDP), World Development Indicators, World Bank, http://data.worldbank.org/indicator/SH.XPD.TOTL.ZS.

[c] Health expenditure, public (% of total health expenditure), World Development Indicators, World Bank, http://data.worldbank.org/indicator/SH.XPD.PUBL.

[d] For costing in Rwanda, the following substitutions were made: Fluoxetine was substituted with SSRI and reusable cloth diapers instead of disposable.

[e] Costing in Vietnam does not include *Parenteral Fluconazole* as pricing for this medicine was unavailable in the country.

A Call to Action

1. Avoid catastrophic costs for users.
   Since health care costs tend to be high near the end of life,[35,45] it is of particular importance to provide palliative and end-of-life care that avoids high user fees and the serious risk of impoverishment. While the level of pooled funds for health care does and will vary between countries, with similar differences in the scope of services funded by pooled funds, the mechanisms for funding essential palliative care should ensure that these avoid significant user fees and minimize the risk of catastrophic costs to families
2. Provide incentives for a more efficient use of existing health care resources.
   There is good evidence that better use could be made of existing end-of-life care resources, where access is given to symptom management and palliative care services.[32,47,54] Making access to palliative care affordable and easier for service users reduces the burden on other services such as hospital care and ICU care, which are less

appropriate and less effective in advanced illness. For example, in the South African Medical Research Council's 2018 report, *Saving lives, saving costs*, it was estimated that "if 50% of patients currently managed in hospital for palliative care were moved to home management for an average of two weeks, the cost of home management would stand at R330.7 million a year, whilst it would have been R3.7 billion if they had been managed in hospital, a saving of R3.3 billion a year."[92]

3. Provide incentives for the integration of palliative care into wider health services including community-based programs.

   In countries where limited public funding is spent on palliative care, additional funding where available should be directed to existing mechanisms to support the provision of palliative care. In addition, the Essential Package of Palliative Care (EPPC)[19] should be considered as part of the process of priority setting for developing explicit health benefit service packages.[19,93]

   Where palliative care has been developed by and funded by NGOs and other voluntary organizations,[67,94] the aim should be to develop funding flows in palliative care within existing pooled funding financing mechanisms to ensure equity of access to palliative care. The payback comes from savings in other areas of health care, as well as gains to patients and their families and to the wider economy, as demonstrated in the Investment case for palliative care in Kenya publication.[95]

4. Describe, monitor and understand the costs of palliative care provision

   Providing access to the most necessary and effective relief of serious illness-related suffering is not prohibitively expensive in any setting. The Lancet Commission (2018) estimated that for low-income countries the annual cost of the Essential Package of Palliative Care is about USD 2.16 per capita, or 2%−3% of the cost of the model UHC package developed by the third edition of the Disease Control Priorities.[19,90] Extending access to timely palliative care is less expensive where existing partial access already exists and where lower levels of extreme poverty reduce the need for the social supports within the EPPC. Given the evidence on the importance of access to effective symptom relief at the end of life, the EPPC should be considered for inclusion in country level health benefit service packages.

5. Develop Future Frameworks for funding palliative care services.

Mechanisms for funding palliative care need:

- to provide adequate resources to pay for those services that meet the urgent needs of people near the end of their life and their families, across all ages, and to support those with life-limiting or life-threatening illness throughout the full course of their illness;
- to ensure protection from financial hardship by providing incentives for more efficient use of existing health care resources used to care for people with life-limiting or life-threatening illness and, particularly, at the end of life;
- to provide incentives for integration of palliative care into wider health services and good coordination of end-of-life care, properly recognizing palliative care as a key component of UHC.
- investment in training: WHA resolution 67.19 recommends basic palliative care training for all health care professionals.[1] This training will assist clinicians to provide palliative care in a timely way as well as to guide them as to which patients should be referred to a specialist palliative care service. Timely referral will also contribute to significantly reducing health care costs. An initial outlay of funds, for training health care workers in palliative care and establishing palliative care guidelines and services would be followed by cost savings in the care of people with advanced illness.[95]

When compared with other services, palliative care is a relatively inexpensive service. A study in India estimated that in 2010 a good palliative care service could be provided at a cost per patient of Rs 9000−10,000 (USD 125 in 2010) for the whole period of palliative care in their final illness (of which just USD 7 was for drug costs.[94] While it is desirable for services to be developed well beyond this basic level, what this demonstrates is that it is feasible to fund access to the most essential palliative care in *all* settings without imposing heavy financial and care burdens on families and service users.

This article may be used by advocates within their own countries to engage with health policy makers to discuss funding mechanisms for palliative care to support national palliative care policies. They can engage with service providers to promote integration of palliative care into health facilities and services and healthcare training. They can also advocate for and engage in research into cost-benefit assessment of palliative care.

Limitations of the Data

There is more research into costing studies related to palliative care in high income countries and limited data from low income countries. However, costing research is being undertaken and there are a number of studies describing catastrophic expenditure[10,67,77] and financial toxicity from both high-income and LMICs.[41−44,66] Traditional approaches describing cost-benefit (such as QALYs) are not appropriate for palliative care where the patient's condition is expected to progress, with death as a likely outcome. However, costing tools appropriate to palliative care have been developed and adapted to low income settings. In addition to funding for palliative care being limited, there is little funding for palliative care research in spite of the fact that this is very much needed.

Conclusion

This article summarises the literature suggesting that palliative care can provide cost savings to society as a whole (health systems, patients, families) as well as providing good care in line with patient preferences. The evidence indicates that palliative care is effective in providing patient-centred care, in managing symptoms and patient distress, and in saving money for both the family and the health system. Funding mechanisms for palliative care may exist in high-income countries, but many low- and middle-income countries do not yet have sustainable mechanisms of funding palliative care services. In countries where palliative care is yet to be included within a broader health system and financing strategy, the information provided may be useful to policymakers at international, national and local levels, health facility managers and funders of health care during health sector priority setting and funding review processes. Together with other health interventions, inclusion of palliative care in health system financing strategies would have the dual benefit of improving quality of care for patients and helping to control expenditure on health care.

Critical next steps include advocating with policy makers, health planners and other key stakeholders, gathering evidence and setting a research agenda to identify optimal delivery strategies and components, describing best practice, costed service delivery models supporting care for patients and families who need them most and the health economics of palliative care. When palliative care forms part of an integrated service, funding can be made available through existing health funding mechanisms such as government funding or insurance contributions as described in the country examples of Rwanda and Romania above.

Consent for Publication

All authors have approved manuscript for publication.

Author Contributions

All authors planned the review and LG provided oversight of the work. Authors contributed to specified sections of the paper and all authors reviewed and approved the paper.

Disclosures and Acknowledgement

We acknowledge and appreciate the support from Marie-Charlotte Bouësseau who initiated the project while she was working at the World Health Organisation. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors. The authors declare no conflicts of interest.

Availability of Data and Material

Available on reasonable request to lead author LG

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