

Pediatric cancers and family financial toxicity in the Philippines: insights for Southeast Asia and similarly resourced settings



Rod Carlo Columbres,^{a,b} Erin Jay G. Feliciano,^{c,d} Kathleen Joy Taleon-Tampo,^e Katelyn Edelwina Y. Legaspi,^{f,g} Michelle Ann B. Eala,^{f,h} Kenrick Ng,ⁱ Fumiko Chino,^j Frederic Ivan L. Ting,^{k,l} and Edward Christopher Dee^{l,*}



^aCenter for Cancer Research, National Cancer Institute, National Institutes of Health, Bethesda, MD, USA

^bCollege of Osteopathic Medicine, William Carey University, Hattiesburg, MS, USA

^cSchool of Medicine and Public Health, Ateneo de Manila University, Pasig City, Philippines

^dDepartment of Internal Medicine, NYC Health + Hospitals/Elmhurst, Icahn School of Medicine at Mount Sinai, Queens, NY, USA

^eDepartment of Pediatrics, Eastern Visayas Medical Center, Tacloban City, Philippines

^fCollege of Medicine, University of the Philippines, Manila, Philippines

^gDepartment of Physiology, College of Medicine, San Beda University, Manila, Philippines

^hDepartment of Radiation Oncology, University of California, Los Angeles, Los Angeles, CA, USA

ⁱDepartment of Medical Oncology, St Bartholomew's Hospital, Bart's Health NHS Trust, London, UK

^jDepartment of Radiation Oncology, Memorial Sloan Kettering Cancer Center, New York, NY, USA

^kDivision of Medical Oncology, Department of Internal Medicine, Corazon Locsin Montelibano Memorial Regional Hospital, Bacolod, Philippines

^lDepartment of Clinical Sciences, College of Medicine, University of St. La Salle, Bacolod, Philippines

Summary

Cancer is a leading cause of death among children in the Philippines, a low-middle-income country of over 110 million people. In this Comment, we describe how financial toxicity affects families of pediatric patients with cancer in the Philippines. We explore direct costs of care, indirect costs such as transportation and lodging, and psychosocial sequelae, in the Filipino medical system and sociocultural contexts. We present examples of successful interventions in the Philippines and in similarly resourced settings, with the goal of galvanizing further research, clinical interventions, and policy-level changes, aimed at mitigating family financial toxicity for pediatric patients with cancer in the Philippines and globally.

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Introduction

In the Philippines, pediatric cancers are associated with 25–50% 5-year overall survival, in contrast to 80% in many high-income countries.¹ Up to 80% in some Philippine settings may abandon treatment due to the heavy economic burden associated with care and limited diagnostic capabilities.^{1,2} Myriad barriers to care include limited access to oncologists, few pediatric oncology referral centers, variable health literacy and cancer awareness, geographical factors, limited funding, and poor financial security at baseline for many families.³

Funding for pediatric cancer care falls under the National Health Insurance Program (NHIP)⁴; however, NHIP only covers early-stage cancer treatments with limited coverage for more advanced diseases. Although an estimated PHP 18.8 billion (USD 320 million) is spent on cancer health by the Philippine government,

the burden of payment still falls heavily on patients and their families.⁴ As such, majority of cancer costs are paid by patients or their private insurance, posing challenges in a setting in which the 2023 daily minimum wage in Metro cities was estimated at PHP 610 (USD 10).

Recent efforts have been made to improve access to pediatric cancer care, such as the designation of the Philippine Children's Medical Center Cancer and Hematology Center as the national referral center for pediatric cancer and the Acute Lymphoblastic Leukemia Medicines Access Program (ALLMAP).⁴ However, despite these advances in cancer care financing, the financial impact on families cannot be understated.

Elements of financial toxicity

1. Direct costs of pediatric cancer

Direct financial toxicity (FT) consists of direct costs of care borne by families of pediatric patients, who often face higher out-of-pocket expenses compared with adults with cancer (Table 1).⁷ In the Philippines, the majority of families experience at least some FT related to their child's cancer, driven primarily by drug expenses and

*Corresponding author. Department of Radiation Oncology, Memorial Sloan Kettering Cancer Center, New York, NY, 10065, USA.

E-mail address: deee1@mskcc.org (E.C. Dee).

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Elements of financial toxicity in pediatric cancer care	Description in Philippine context	Consequences
Direct costs	<ul style="list-style-type: none"> Chemotherapy, radiation therapy, and surgery costs are higher compared to neighboring countries such as India and Vietnam 	<ul style="list-style-type: none"> Increased treatment attrition rates: Philippines (80%) compared to India and Japan (<50%)^{2,5,6}
Indirect	<ul style="list-style-type: none"> Transportation to treatment centers Job instability Family collective effort and time (eg medication retrieval, travel assistance, and continuous care and support) 	<ul style="list-style-type: none"> Caregivers may spend large proportions of their annual income on medical and nonmedical out-of-pocket costs Delayed housing payments, food insecurity
Psychosocial	<ul style="list-style-type: none"> Increased sibling anxiety Negative psychosocial coping mechanisms, including self-blame Increased pressure driven by FT 	<ul style="list-style-type: none"> Reduction in household income Financial coping mechanisms including borrowing money or pawning assets Compromised caregiver health and well-being

Table 1: Elements of financial toxicity associated in pediatric cancer care in the Philippines and associated consequences.

supportive care.⁵ A session of chemotherapy costs ~ PHP 20,000–120,000 (USD 340–2000), equivalent to weeks to months of income for many families.²

Costs of radiation and surgery are significant as well. First-year direct treatment costs for retinoblastoma (treated surgically) range from PHP 375,000 (USD 6400) to PHP 750,000 (USD 12,800), which are higher compared to many neighboring countries.^{8,9}

Direct FT can force families to contemplate halting medical treatments, especially those disproportionately vulnerable to experiencing financial catastrophe.¹⁰

2. Indirect costs of pediatric cancer care

Indirect FT includes costs of transportation, lodging during treatment, and others.⁷ A study of Filipino parents of patients with cancer found that of logistical needs, transportation to consultants and treatment was most frequently reported; transportation is of particular importance in an archipelagic country in which most resources are concentrated in the National Capital Region.⁵ Indirect costs borne by parents also manifest in their “ability to hold a job [which] may also be affected by other physical, psychosocial, and emotional care needs of the child and spouse.”¹¹

Culturally, as in many LMIC settings, family members play integral roles in healthcare decision-making, participating in allocentric efforts. In Indonesia, patients with cancer frequently rely on family members for emotional solace and financial support, with parents sometimes even upgrading their health insurance to cover their children’s medical expenses.¹²

The Filipino cultural value of *bayanihan* — the willingness to help without expecting payment — likely helps to mitigate some of the costs borne directly by parents; however, the same generous ethos may also result in costs shared by more distant relatives.¹¹

3. Psychosocial distress associated with pediatric cancer care and caregiving

The psychological distress associated with the financial aspects of cancer care is complex in children

and their families.¹³ Parents and caregivers may resort to negative psychosocial and financial coping mechanisms to alleviate financial strain associated with cancer care.^{10,13}

A study of Filipino pediatric patients with acute lymphocytic leukemia (ALL) and well siblings found that a patient’s anxiety was correlated with that of their sibling.¹⁴ In Filipino households, women often bear the brunt of caregiving responsibilities due to traditional gender roles. This increased responsibility can lead to significant disruptions in their work commitments and subsequent incomes.¹¹

Financial pressure experienced by parents and caregivers can also lead to deleterious consequences such as compromised health and well-being.¹¹ Families may resort to traditional, complementary, and alternative medicine to complement their sick relative’s treatment, potentially exacerbating financial strain.¹⁵

Recommendations for closing the cancer care gap

1. Screen for financial toxicity in the clinic

Clinicians must be equipped to screen for FT early on in the pediatric cancer treatment course, and provide guidance regarding available resources. Tools for FT screening have been developed and have shown screening promise in LMICs (Table 2).²⁰

Providers may educate families regarding available financial assistance resources, such as the Philippine Charity Sweepstakes Office’s (PCSO) Individual Medical Assistance Program and others.¹⁶ Proactive provision of accessible information through avenues such as pamphlets, social media, websites and in-hospital patient navigation are key.

2. Improve concrete financial support

The Z-benefit packages from the NHIP have made strides in offering financial support. The original budget allocated in 2012 for three-year ALL treatment was PHP 210,000 (USD 4600),⁴ increased to PHP

Measures to decrease family financial toxicity in the Philippines		
Mechanism	Description	Examples of early successes
Screening for FT in the clinic	Identify risk factors such as low parental education and psychosocial challenges	<ul style="list-style-type: none"> - FT screening showed promise in LMICs such as Vietnam²⁰ - Comprehensive Score for Financial Toxicity (COST) metric - Patient-reported outcome for fighting financial toxicity (PROFFIT) metric
Connect families to available resources	Provide list of free or low-cost financial assistance services	<ul style="list-style-type: none"> - Philippine Charity Sweepstakes Office's Individual Medical Assistance Program - ALLMAP - Financial navigators - Online resources such as CancerCare
Improve concrete financial support	Increase coverage of treatment and supportive costs	<ul style="list-style-type: none"> - Z-package - National Integrated Cancer Control Act (NICCA)
Improve access to pediatric oncology clinical trial participation	Expand recruitment efforts and regular updates on the Philippine Health Research Registry Increased funding and strengthening pediatric oncology clinical trials to improve access and guide practice guidelines, as in Thailand, India, and Japan. ¹⁶	<ul style="list-style-type: none"> - WIRB-Copernicus CenterWatch - Find a clinical trial (FACT) tool in Malaysia¹⁷
Enhance community support	Enhance community health worker's role in care and health education to correct any oncology and treatment related misbeliefs Decrease burden of referral pathway from primary to tertiary centers	<ul style="list-style-type: none"> - Community health workers in India, Thailand, Bangladesh and Nepal¹⁸ - <i>Barangay</i> Health Worker training such as the AKAP program - Tracking system with assistance of local health workers in Brazil¹⁹ - Community support groups - Disease specific advocacy groups
Strengthen pediatric oncology workforce, infrastructure, and research	Recruit and retain specialized pediatric oncology nurses and other healthcare workforce in the country, with resources allocated to retaining them Build new cancer treatment centers in non-major cities Improve system or referral pathway from the rural health units to the hospitals Enhanced cooperation between local advocates, the Philippine government, and international groups Philippine specific FT research to provide specific interventions	<ul style="list-style-type: none"> - FT research addressing needs in individual countries as seen in Thailand and India

Table 2: Measures to decrease family financial toxicity in the Philippines.

380,000 (USD 6500) in 2017. Moreover, the Philippine government has implemented a ‘no-balance billing’ system for service patients, mandating hospitals to cover any additional costs incurred by patients receiving the Z-benefits. However, due to inconsistencies and uncovered expenses when complications during treatment arise, reevaluation of the status of the Z-benefit package is needed to examine current usage and develop ways in which it could be improved. Further work to turn the 2019 National Integrated Cancer Control Act into material support for patients and their families is crucial.²¹

3. Improve access to clinical trial participation

In neighboring countries like India, enrolling children with cancer has been challenging, with less than 5% enrolled since 2015.²² Efforts should focus on maintaining an updated Philippine Health Research Registry, which may benefit from including a discussion of costs that patients and families may face (or costs that may be

alleviated) as seen in Malaysia.^{17,23} The WIRB-Copernicus Group (WCG) runs CenterWatch, which displays actively recruiting clinical trials in order of location, and maintains pages listing trials in the Philippines.

4. Enhance community support, referral pathways, and support groups

Community health workers play a vital role in providing primary healthcare services at the community level in LMICs.¹⁸ They help reduce cancer treatment attrition rates and enhance outcomes. Thus, improved cancer awareness for *barangay* health workers (BHW)—such as through the Abot Kamay Ako at ang PSMO (AKAP) BHW training program—may be an important first step in addressing several of these concerns. In addition, they should initiate discussion on FT and address other non-financial concerns with all patients and their families to offer comprehensive support, improve shared decision-making, and enhance treatment adherence.

The centers chosen for the initial AKAP pilot launch in 2022 were those close to Department of Health (DOH) referral centers, to facilitate referral pathways. These referral channels could also serve as an avenue for disseminating information about cancer clinical trials. Lastly, families may also benefit from disease specific or community support groups.¹¹

5. Strengthen pediatric oncology workforce, infrastructure, and research

While the Philippines has a more favorable pediatric oncologist-to-patient ratio compared to countries such as Vietnam and Bangladesh, a shortage of specialized pediatric oncology workforce remains.²⁴ Increased funding is needed to retain pediatric oncology specialists in the Philippines. Infrastructure improvement and cooperation between local advocates, the Philippine government, and international groups are needed as well. Lastly, as most FT studies are conducted in HICs, research on FT interventions tailored to the unique challenges of the Philippines are needed.

Conclusion

In the Philippines and other LMIC settings, comprehensive support systems are needed to assist families in coping with the multifaceted challenges that cancer poses, with the goal of improving the overall well-being of both the diagnosed child and their families.

Contributions

RCC—conceptualisation, formal analysis, investigation, writing—original draft. ECD—conceptualisation, writing—review & editing. All other authors contributed to writing—review & editing.

Declaration of interests

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