

City Cancer Challenge: Building Resilient Cancer Care Ecosystems from the Ground Up

While Low-and-middle-income countries (LMICs) now shoulder most of the cancer burden at 70% of cancer deaths worldwide¹, effective treatment remains impeded by health system challenges, as cancer survival depends not on a single intervention, but on the effectiveness of the entire cancer care ecosystem. Cancer care requires an interconnected system involving pathology, surgery, radiotherapy, and palliative care, yet traditional funding models for Non-Communicable Diseases (NCDs) such as cancer have historically favored "vertical" interventions: specific disease programs or equipment donations that operate largely in silos, overlooking local context, system readiness, and the interdependencies that define real-world cancer care. Recognizing this, City Cancer Challenge (C/Can), an impact-driven NGO, has reimagined the city as the primary unit of intervention. By working within existing health systems, C/Can supports locally led cancer care ecosystems that deliver incremental and sustainable improvements, generate actionable evidence, and ultimately lay the foundation for broader national health system transformation.

A Process-Driven Approach to Tackle the Entire Cancer Care Cycle

Health financing for NCDs stands as one of the most pressing challenges in today's global health landscape. NCDs are the leading cause of death and disability globally, accounting for 74% of all deaths, with 86% of premature deaths occurring in LMICs² (WHO, 2023). However, both the civil society network, the NCD Alliance³ and scientific literature⁴ point out that service delivery for NCD care in LMICs tends to be siloed, organized and funded through different teams and budget lines. This fragmentation is particularly damaging for cancer care. Effective cancer treatment relies on a

¹ American Cancer Society, The Global Cancer Burden, <https://www.cancer.org/about-us/our-global-health-work/global-cancer-burden.html>

² World Health Organization (WHO), Noncommunicable diseases (overview), https://www.who.int/health-topics/noncommunicable-diseases#tab=tab_1

³ Health Financing Challenges and Opportunities for Integrating Noncommunicable Diseases into Global Health and Development Priorities, NCD Alliance, 2024, <https://hpfhub.info/wp-content/uploads/2024/08/Health-Financing-Challenges-and-Opportunities-for-Integrating-Noncommunicable-Diseases-into-Global-Health-and-Development-Priorities-NCD-Alliance-2024.pdf>

⁴ L Vijayasingham, Implementing and evaluating integrated care models for non-communicable diseases in fragile and humanitarian settings, Journal of Migration and Health, Volume 9, 2024, <https://www.sciencedirect.com/science/article/pii/S2666623524000187>

continuous chain of services, from early diagnosis and pathology to surgery, radiotherapy, and palliative care. When even one link in this chain is missing or under-resourced, the entire patient journey is put at risk.

Initially developed with the support of the Union for International Cancer Control (UICC) in 2017, becoming independent in 2019, C/Can deliberately departs from traditional development models that introduce pre-defined solutions alongside public systems. Instead, it works from within through its rigorous yet flexible City Engagement Process, helping local stakeholders identify their cancer care gaps and co-create solutions tailored to their context. Implemented as an iterative cycle over two to three years, the process strengthens public health delivery incrementally, prioritizing sustainability over short-term fixes. While C/Can convenes and pools resources from pharmaceutical and health-technology partners, its strict conflict-of-interest policies ensure that cities and priorities are defined by local need, ensuring the alignment of diverse actors around a shared agenda for system-wide improvement. Within this model, private-sector participation is essential, not as a parallel delivery channel, but as a catalytic partner that contributes expertise, innovation, and long-term investment aligned with locally defined system priorities and public health governance.

Unlocking Local Human Capital to Implement Change from Within

C/Can's model is defined by empowering local leadership. Each city engagement begins with comprehensive stakeholder mapping, leading to the formation of a multi-sectoral City Executive Committee (CEC) that brings together decision-makers from government, clinical practice, academia, and hospital leadership. This multi-institutional composition allows the CEC to assemble interdisciplinary working groups which are then uniquely qualified to carry out a data-driven needs assessment based on local cancer care capacity. In parallel, the CEC conducts a sustainability assessment to develop a plan to ensure progress continues and the solutions delivered are sustainable beyond C/Can's involvement.



By prioritizing human capital before technical solutions, C/Can builds genuine ownership from the outset. Participation is voluntary, fostering commitment rather than compliance and reshaping how institutions collaborate across traditional hierarchies. The scale of mobilization is immense: in Kumasi, Ghana, the initiative brought together 578 stakeholders, while in Tbilisi, Georgia, 174 health professionals convened to map the city's needs, creating a density of connection that transforms local medical culture beyond existing barriers. Overall, more than 6,000 stakeholders have been involved within C/Can's city engagements, with over 2,000 health professionals trained to embed systemic and cultural change from within.

Advancing Cancer Care Equity through Robust Quality Standards

Once data is fully analyzed, it is translated into a City Action Plan that guides implementation. At this stage, C/Can provides targeted technical assistance to connect city-led project teams with regional and international technical experts, mobilizing the resources needed to meet international quality standards. Local teams driving implementation are supported by global technical partners, including WHO, the American Society of Clinical Oncology (ASCO) and the International Atomic Energy Agency (IAEA) ensuring that improvements are both context-appropriate and clinically robust. For example, ASCO's involvement in Multidisciplinary Team training in Tbilisi is helping to institutionalize a culture of learning where surgeons, radiologists, and oncologists collaborate on

patient cases to facilitate a practice and quality of care, independent of where patients access their care across the health system. Overall, more than 47 global partners have collaborated with C/Can's projects to date.

Equity is a defining principle of this approach. Since a patient's diagnosis pathway in LMICs can vary significantly depending on whether they enter a public hospital or a private clinic, C/Can facilitates the creation of Resource-Appropriate Guidelines that combat inequity by reflecting real-world constraints rather than idealized and aspirational standards. This process has already successfully contributed to the development and implementation of more than 214 cancer care solutions.

Systematic Data Measurement to Maximize Impact

To move beyond simple output metrics, C/Can utilizes the City Assessment Dimension (CAD) framework. This tool measures "System Readiness" and tracks performance indicators that signal the health of the entire ecosystem. Grounded in local realities, this approach enables city leaders to identify bottlenecks, prioritize interventions, and direct resources where they will have the greatest impact. In Kumasi, the ecosystem identified that paper-based referrals were causing dangerous delays for children with cancer. In response, local stakeholders co-created "Oncokids," a digital referral app connecting 24 facilities. Combined with training for 120 health workers, this tool led to a 3.5-fold increase in successful referrals in just one year.

Access to quality cancer care improved in the city					
	Patient-Centric Care (PCC)	Access to Care (ACC)	Quality of Care (QOC)	Development of Human Capital (DHC)	Local Knowledge Generation & Exchange (LKG)
01	Number & proportion of eligible institutions conduct patient surveys at least annually	Proportion of patients spending more than 25% of monthly income on cancer care	Number of cancer management guidelines developed & endorsed	Number of health care providers trained	Number of C/Can-affiliated, peer-reviewed journal articles published with local or female first author
02	Number & proportion of local institutions adopting one or more C/Can training or course	Number of patients identified with suspected cancer/ diagnosed with cancer/ initiated on treatment	Number & proportion of eligible institutions with MDT discussions held at least monthly	Number & proportion of local institutions adopting trainings/ courses	Number of quality assurance reports developed and endorsed
03	Number of patients involved in City Engagement Process	Proportion of patients and cancer care services covered by financial schemes	Average time from suspected diagnosis to confirmed diagnosis or rule-out, by cancer type	Number & proportion of training participants reporting improved knowledge/skills	Proportion of Community of Practice participants reporting improved coordination/ networking/ knowledge exchange
04	Proportion of patients reaching care milestones or who are lost to follow up	Number of development plans created & endorsed	Average time from confirmed cancer diagnosis to initiation of treatment or care plan, by cancer type	Number of human resources for health per 100,000 population, by professional type	Number & proportion of eligible institutions contributing data to PBCR

City Assessment Dimension: Lead Indicators

Across C/Can cities, lead indicators tracked through the City Assessment Dimension validate the impact of a systems-based approach: in Kigali, Rwanda, the strengthening of referral pathways and diagnostic capacity reduced the average time from diagnosis to treatment from 82 days to just 28. In Cali, Colombia, improved patient navigation systems led to a 15% reduction in patient dropout rates. Overall, more than 937,000 patients have been reached across C/Can cities by 2025.

Translating Local Success into National Action

C/Can's model is designed for sustainability: by the time projects are delivered, the city has built the governance structures and data capacity required to manage ongoing improvements independently. Crucially, C/Can extends impact beyond individual cities by using locally generated evidence to inform national decision-making. Cities become engines for policy reform, providing ministries of health with tested solutions and actionable data to secure funding and scale what works.



Tbilisi serves as a prime example of this transition: after years of successful city-led management, oversight of C/Can activities is transitioning to a newly established National Cancer Board under the Ministry of Health. The city's pilot success - such as the establishment of central in-hospital pharmacies to improve medication safety - is now setting the standard for the entire country.

Looking forward, C/Can is exploring new models to scale impact, including "asset sharing" - open-sourcing technical tools for global use (15 cancer management guidelines already developed across 5 types of cancer) - and piloting a "Simplified Engagement Process" for governments requesting targeted assistance. By turning local lessons into global assets, C/Can demonstrates that the most effective way

to fix a national healthcare system is to start from the ground up.