City Cancer Challenge: Delivering sustainable, local solutions for cancer care

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City Cancer Challenge (C/Can) is a global, multisectoral initiative launched by the Union for International Cancer Control (UICC) in Davos, Switzerland, in January 2017. C/Can aims to build a collective movement of cities, supported by a network of global and local partners, to deliver quality, equitable, and sustainable cancer treatment solutions for all. This article provides an overview of the C/Can approach, highlighting early successes, as well as opportunities for future engagement by the cancer community and beyond.

Cities as health policy “entrepreneurs”

Today, more than half of the world’s population live in urban environments. By 2030, a projected 662 cities will have at least one million residents with 95% of urban expansion predicted to take place in low- and middle-income countries (LMICs) (1). The scale and speed of this urbanization means cities are facing unprecedented pressures on the urban environment, and the health and wellbeing of their populations. This challenge is compounded in LMICs, where the non-communicable disease (NCD) burden is the highest, and where already fragile health systems are struggling to provide equitable access to quality healthcare, particularly for the most vulnerable populations.

In response, city leaders are emerging as champions of new initiatives and platforms for health promotion, and, in many cases, “policy entrepreneurs” in NCD prevention and care, developing models that are scalable at the national level.

Tbilisi City Hall, for example, has been supporting screening programmes for breast, cervical, colorectal and prostate cancer since 2008. In 2016, based on latest registry data showing breast cancer to be the most common malignancy, Tbilisi City Hall decided to allocate resources to ensure full financial coverage for women in Tbilisi with HER-2 positive breast cancer to undergo a full course of targeted treatment. The City of Kigali has been partnering with local businesses and NCD organizations on the Kigali “car-free day” initiative to raise awareness around NCD risk factors, promote physical activity, and deliver a variety of health promotion services to Kigali citizens twice a month.

These and similar city-led initiatives are in turn creating powerful networks of city leaders who are shaping the global urban health and development agenda (2). Building on this momentum, and recognizing the untapped potential of an integrated, systems approach to Sustainable Development Goals (SDGs) 3.4 (non-communicable diseases), 11 (safe and sustainable cities) and 17 (partnership to deliver the goals), City Cancer Challenge (C/Can) was launched by the Union for International Cancer Control (UICC) in 2017 to empower cities to design, plan and implement quality, equitable, sustainable cancer care solutions for all. Now a standalone foundation, C/Can aims to reach 20 cities by 2020, as a first step towards creating a global movement of cities working together to improve cancer control.

The C/Can process: An adaptable blueprint for transformation

C/Can is now operational in seven cities – Cali, Colombia; Asunción, Paraguay; Yangon, Myanmar; Kumasi, Ghana; Porto Alegre, Brazil; Kigali, Rwanda; and Tbilisi, Georgia – and will be announcing a new group of cities in 2019.

C/Can cities are supported to undertake a 2-year process that is shaped around six sequential phases (see Figure 1), with each phase delivering an agreed set of outputs. This provides cities with a systemized framework, which begins with a needs assessment to identify priority interventions for improving access to quality cancer care. These priorities are then further
refined and translated into concrete plans for implementation, which the city leads.

Stakeholder engagement: The power of partnerships
Once a city formally joins C/Can (3) the first step is to map and engage all appropriate stakeholders in the C/Can process, including city leadership, regional/national government, cancer care providers and decision-makers in both the public and private sectors. This results in the establishment of a multisectoral C/Can City Executive Committee - the main decision-making body throughout the process, responsible for the setting of priorities, the approval of city plans and activities, and the oversight of implementation activities. Representation from key actors in the local, regional and national health system, including the national and regional ministries of health who most often administer the delivery of cancer care services in each city is critical. Whilst C/Can is leveraging cities as a key non-state actor in a health systems response, it is important that this response is integrated and coordinated across local, national and international levels.

Needs assessment: Understanding the unique the city context
A key component of the C/Can approach is to empower local city leaders to define their own needs and craft solutions that reflect an understanding of the unique local context. During this phase of the process, data are collected using C/Can’s City Needs Assessment Questionnaire with the aim of providing in-depth information on the current state of delivery of cancer treatment and care services in a city. Developed in 2017 by a global multidisciplinary team of experts and partners (4), the questionnaire is designed to obtain critical operational and administrative data from the principal institutions that provide cancer care services in the city, covering core diagnostic and clinical services, as well as the management and quality of these services. The questions also address the extent to which patients are placed at the centre of care by assessing community access and integration of care within the city, considering the perspective of institutions, civil society and patients.

The data collection process is coordinated by a group of between 20 and 25 local technical experts who each convene working groups comprised of topic experts in each area in the questionnaire (e.g., palliative and supportive care) with different expertise and professional profiles (e.g., treating physicians, nurses, pharmacists, social workers, technicians, psychologists, administrators) from participating institutions. This group of technical experts is also tasked with consolidating city-wide data in their respective fields to produce a short Diagnostic Report summarising findings and recommending priority areas for action.

This city-wide analysis is now complete in the first four C/Can cities (Asuncion, Cali, Kumasi and, Yangon) with data contributed from over 90 institutions, 800 health professionals and 650 patients, across 1,100 data points (see Figure 2).

Planning and technical analysis: Data-driven decision-making
During these phases of the process, city needs are further refined and structured into a set of high-level objectives
with activities, which are further refined and validated. City stakeholders then commit to conduct an in-depth technical assessment to provide robust and validated data on each of the major topic areas to inform project planning. This is considered critical to ensure that city activity plans are data-driven and that all partners and stakeholders, including international organizations and development agencies, can provide a targeted response to the needs.

**Implementation**

During this final phase, implementation moves ahead on a project basis, with clear definition of the institutions/persons responsible, resourcing needs, activity timeline and time-bound targets and metrics to measure progress and impact.

**Addressing needs through technical assistance**

Over 50 international public and private organizations have been mobilised as City Cancer Challenge partners to deliver technical assistance to the cities. This includes government agencies, international organizations (e.g., IAEA), professional associations and private companies. Partnerships with health professional associations (e.g., American Society for Clinical Pathology and the American Society of Clinical Oncology) are already creating opportunities to respond to some key common areas of need, for example, strengthening the quality of pathology services, and building capacity to deliver multidisciplinary cancer management through access to education and training opportunities. These early learnings with partners will be critical in developing a model of technical assistance that can be replicated and sustainably scaled to other cities.

**New collaborations driving change**

Through the C/Can needs assessment and prioritization process, several cancer care gaps that can be addressed through stronger collaboration and cooperation between key stakeholders without needing significant financial investment have been identified.

**Looking ahead: Building a community of cities**

Working with a small but diverse group of 20 cities over the next two years, C/Can aims to validate and refine a series of capacity-building tools, guidance documents and technical assistance packages to ensure they are meaningful and relevant in cities across different regions, income settings and cancer care contexts, and can support scale-up to a wide global community of cities. Lessons learned in the cities will also be used to explore the potential for both greater inter- and intra-regional cooperation and collaboration with specific efforts being made to build networks and platforms that support knowledge exchange and peer-to-peer learning.

**A JOINT INDUSTRY RESPONSE TO SPECIFIC NEEDS IN CALI**

In Cali, Colombia, for example, working via La Asociación de Laboratorios Farmacéuticos de Investigación y Desarrollo (AFIDRO), the pharmaceutical industry has agreed to join efforts and provide a collective response (funding and technical assistance) to a set of specific priority needs. Work is currently underway to finalize this joint industry proposal for support. In addition, AFIDRO are financing a local expert to provide project planning and project management expertise to advance the planning of city projects in Cali.

**EARLY WINS IN KUMASI AND CALI THROUGH THE C/CAN PROCESS**

In Kumasi, for example, bringing together the city, traditional leaders and the teaching hospital through the C/Can process has resulted in a decision from the city to allocate an unused state building to house the cancer registry and provide a local office space for C/Can activities.

In Cali, Colombia, one of the key gaps identified through the needs assessment was the urgent need to increase the number of regular blood donors. Blood banks across the city are working together with the departmental and municipal government to review current public policy around blood donation and to explore coordinated strategies to increase voluntary donation.

Underpinning this effort is an evidence-based approach to monitoring, evaluation and learning (MEL) that will be critical to creating a solid foundation for long-term planning, implementation and ensuring sustainable results. C/Can’s MEL framework includes a comprehensive set of metrics designed to track progress and impact at city and global levels, as well as mechanisms to feed lessons learned into adaptive, iterative planning for city and global activities.

**Ensuring city “readiness” to join C/Can**

One of the critical learnings from the first C/Can cities is that there are a number of common drivers for success in the C/Can process. These have been captured and used to develop a set of “readiness criteria” for cities considering engagement in C/Can. These include:

- political commitment to improved cancer control at city, regional and national level;
- the existence of local champions for improved cancer care;
- robust and coordinated civil society;
open and transparent dialogue between cancer care stakeholders across a city;
examples of multisectoral collaborations between government, private sector and civil society for the improvement of cancer treatment and care;
a National Cancer Control Plan in which C/Can activities can be anchored;
accurate cancer data from a population-based cancer registry to inform the design, planning and monitoring of cancer solutions;
basic capacity and availability of core cancer services that can be built on and accelerated through the C/Can process.

These criteria are outlined in more detail in the C/Can City Checklist (5). The Checklist is designed to support ministers of health, mayors and city leaders, civil society organizations, industry partners and others to gauge a city’s eligibility and readiness to join C/Can; identify areas that may need to be strengthened before applying, and what resources are available to help address these areas. For example, embedding civil society into the C/Can process has proven to be vital in ensuring that the right local stakeholders are engaged, that a strong linkage to the local community is maintained, and that the patient perspective is included. It is therefore important that civil society organizations are coordinated and able to collaborate effectively. The Checklist highlights UICC’s Treatment for All advocacy initiative, that is: working with and supporting UICC members, partners and its network to mobilize and equip civil society with the skills to identify advocacy priorities and translate global cancer commitments into effective national action (6). Similarly, for cities where cancer planning and data need to be strengthened, the Checklist highlights the International Cancer Control Partnership (ICCP) Portal for access to cancer planning and capacity building resources (7), as well as IARC’s Global Initiative for Cancer Registry Development (GICR) (8).

As C/Can continues to grow, engaging new cities, partners, and supporters, it is uniting around a shared vision of improving access to equitable quality cancer treatment and care with the support of a network of local, regional and global partners who bring technical assistance, and complementary resources and competencies to enable sustainable solutions.

Rebecca Morton Doherty is Head of Policy and Global Impact, C/Can: City Cancer Challenge. She joined C/Can in June 2017 to lead sustainable scale-up of C/Can by overseeing its effectiveness and impact at city and global levels; and by ensuring that data and learning generated in cities is used to inform the development of innovative cancer care solutions. Prior to joining C/Can, she had since 2011 coordinated UICC’s advocacy efforts with a focus on the global NCD agenda, and other priority advocacy areas including cancer planning, and equitable access to cancer treatment and care. She has spent 14 years in the NGO sector based in London, Brussels and Geneva, with a focus on programme development and policy change in the global health and development fields.

Dr Susan Henshall is currently the CEO of the City Cancer Challenge. Prior to this, Dr Henshall led a translational cancer research programme at the Garvan Institute of Medical Research in Sydney, Australia, for over a decade, focusing on the identification and validation of markers of cancer outcome and drug response. Over the course of her career, she has held senior faculty appointments at the University of New South Wales in Australia and Georgetown University in the United States. She also played a key role in the funding and development of the Kinghorn Cancer Centre, a dedicated translational cancer research and clinical centre which opened in Sydney in 2012.

Professor Sanchia Aranda is Chair of C/Can: City Cancer Challenge. She was appointed CEO of Cancer Council Australia in 2015. Professor Aranda leads cancer policy and advocacy development, ensuring a strong evidence base informs Australian cancer control. She is a registered nurse and has held roles in healthcare, research, tertiary education and government prior to joining the not-for-profit sector. Her leadership roles nationally and internationally include eight years on the Advisory Council for Cancer Australia (2006–2015), 16 years on the board of the ISNCC, including four as President (2006–2010) and eight years on the board of UICC, including two as President (2016–2018). She is a board member for the International Collaboration on Cancer Reporting and the Clinical Oncological Society of Australia.

References
3. Following completion of the full city application process and after meeting C/Can due diligence requirements.
4. Developed in collaboration with ASCP, ASCO, AABB, Fred-Hutchinson Cancer Center, King Hussein Cancer Center, National Institutes of of Health, University of Maryland School of Medicine, NCI-USA, IPOC, Tata-Memorial Hospital, UPMC, WHO.
5. www.citycancerchallenge.org
6. https://www.uicc.org/what-we-do/advocacy/treatment-all