



City Cancer Challenge Foundation

From Implementation to Impact:
Harnessing the Power of Cities

2023 Annual Report



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The C/Can city model proves that transformative, sustainable change can be locally led and rise from the ground up. On our journey to understanding what works—and what doesn't—we've constantly evolved, refining our approach to maximise our impact.



Isabel

Isabel Mestres

CEO, City Cancer Challenge Foundation

2023 marked a turning point. We embraced a bold new strategic vision, rewiring the way we think. We shifted from a process-centred approach to an impact-driven organisation delivering measurable improvements to people living with cancer and the healthcare professionals who care for them.

Cancer care is inherently complex, and creating profound, deeply rooted impact takes time. Recognising this, in 2023, we extended our support to cities over a longer time horizon. We built long-term partnerships that zeroed in on supporting local stakeholders with solutions that integrate within existing health systems. We strategically grew our team in the areas of technical cooperation and digital health and innovation to deliver on these goals.

This past year, our cities made important strides in six priority areas: building resilient health systems, enhancing workforce capacity, strengthening health financing, fostering leadership, connecting health information platforms, and ensuring readiness for essential medicine access.

The results of these efforts paint a powerful picture. Kigali saw a remarkable 65% reduction in the time between diagnosis and treatment through a patient navigation programme. Kumasi has helped improve the chances of survival for childhood cancer patients, increasing the number of timely referrals for suspected cases by 2.5-fold. In Paraguay, better pathology infrastructure and quality control measures led to faster diagnoses, meaning patients could start their treatment sooner.

C/Can serves as a vital bridge between policy and practice, ensuring global recommendations translate to local implementation. Our collaboration with the World Health Organization to take the Global Breast Cancer Initiative from framework to action is a prime example of this role. Striving for sustainable, lasting impact also demands refining how we measure the effects of our work.

In 2023, we collaborated with King's College and city stakeholders to define outcome-level indicators around access to care, tailored to the resource settings of the cities we serve. This approach is set to fill a critical gap in evidence-based interventions for low-resource settings.

This annual report offers just a glimpse into our ongoing journey. We've expanded our city network, re-engineered our theory of change to adapt to a new future, and forged a clear path from project outputs to outcomes. Throughout it all, we've sought to deepen our understanding of our stakeholders, to engage them more fully and bring them along with us on the journey—from data to design, implementation to impact.

Together with our collaborators, partners, colleagues, and all those who helped make a difference this past year, we've positioned C/Can for even greater achievements in 2024 and beyond.



01

Our mission

Cancer knows no boundaries. It affects communities in every corner of the globe, but nowhere is its impact more devastating than in low-and middle-income countries, where access to essential healthcare services, diagnostics, and treatments remains limited.

The City Cancer Challenge Foundation was founded on the recognition that solutions to this crisis need to be pragmatic, multi-sectoral, and focussed on driving meaningful change where it counts the most: closer to the patient.

We work with cities to build the knowledge, relationships and expertise needed to tackle the challenges they face in cancer care, with a view to replicating solutions in other parts of the country.

We seek to use the urban experience of cancer care as a means of understanding the challenges facing a wider population. We believe in a holistic and integrated approach, where instead of isolated efforts in specific specialities or cancers, or in distinct phases of the patient journey, working at a city level allows us to see the whole healthcare system in action.

Where you live should not determine the care you receive.



02 C/Can cities



C/Can is working with 15 cities to build the knowledge, relationships and expertise needed to tackle the challenges they face in cancer care, with a view to replicating solutions in other parts of the country.

Cities apply to join C/Can and are considered based on their commitment to fighting cancer, set against various criteria. A new call for city applications was launched in 2023.



03

Why our work matters



Data from the International Agency for Research on Cancer (IARC) projects a rise in cancer cases that could reach 77% by 2050. In just over 25 years, the cancer burden could be as high as 35 million diagnosed cases, with many more left undiagnosed and untreated.

The countries who are least able to afford to confront a mounting disease burden must also contend with its worst effects: low- and middle-income countries (LMICs) face significantly higher cancer mortality, particularly in individuals younger than 65. Meanwhile, most countries are still not adequately prioritising cancer.

Averting this crisis while addressing these disparities is what drove C/Can’s progress in 2023. This is why our work matters.



↑ 77%

Cancer cases in 2050



35 M

Cases diagnosed over the next 25 years



04

Our impact



66.5 M

Population benefited from improved health systems



6,390

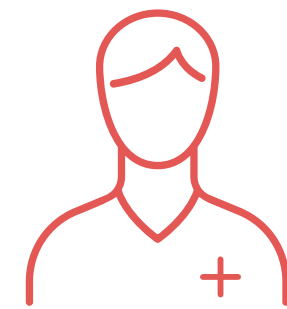
Healthcare professionals supported



113

Total cancer care solutions developed

Our contributions to the SDGs



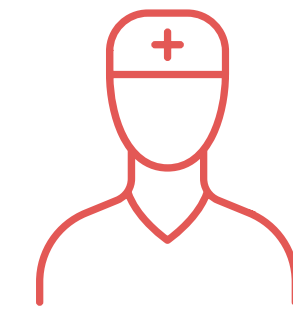
1,652

Patients participating in C/Can city process



61

Global partners



1,179

Healthcare workers participating in capacity development initiatives



05 Strategic progress

AREA OF ACTION

Health Service Delivery

Providing technical expertise to support the planning, design and implementation of quality assured and standardised cancer care solutions in cities.

2023 HIGHLIGHTS

CALI Progress has been made in the implementation of five prioritised cancer management guidelines, reaching 100% of the city's cancer institutions with 20% of institutions applying the patient tracer methodology by December 2023.

ASUNCION Turnaround time from biopsy to diagnosis has been reduced from an average of 30 days to 15 days, including immunohistochemistry, as part of the Readiness for access to cancer medicines programme.

PORTO ALEGRE A quality manual for pathology has led to city authorities officially incorporating quality measurement indicators into Government laboratory services contracts.

SPOTLIGHT

The vital role of patient navigation in delivering effective cancer care

Kigali | Rwanda

The Patient Navigation Programme in Kigali, Rwanda, is a shining example of how improved care coordination can significantly impact patient outcomes by strengthening the role of the patient navigator. With support from C/Can, the programme was spearheaded by the Rwanda Biomedical Center, the national health implementation agency, and directly addresses challenges faced by patients, including late diagnoses and delayed treatment, by strengthening communication and care coordination across five major cancer centres in the country.

Health Service Delivery

BACKGROUND

For cancer patients in Kigali, navigating treatment and care can be slow, confusing, and frustrating. A lack of systematic multidisciplinary decision-making, incomplete treatment planning, the absence of treatment protocols or resource-adapted guidelines, inefficient referrals, and too little data sharing across care institutions have resulted in under-informed decision-making, late diagnoses, and delays in treating patients. Patients struggled to know where to go and to whom they could turn to understand their best course of action.

Breast cancer is the most prevalent form of the disease in Rwanda, followed by cervical cancer, yet half of all expected breast cancer patients do not complete the required services for diagnosis and treatment. The project focused on improving care coordination for women with high suspicion or confirmed diagnoses of breast or cervical cancer in the country's main five cancer centres.



The navigator was helping me throughout. I nearly gave up because of financial difficulties, but the navigator linked me with Butaro Hospital, where I was able to get help. She even communicated with my husband and daughter to encourage us.

Patient who was supported by a Patient Navigator

PROJECT OVERVIEW

To address the identified critical care gaps, the Patient Navigation Programme aimed to improve the effective use of human resources, communications across care centres, the overall patient experience, and retention in the cancer care journey.

The introduction of an integrated digital information system helped to facilitate data sharing across cancer centres, which allowed healthcare providers to access patient information across institutions, discuss complex cases collaboratively, and ensure timely treatment decisions.

Through the assistance of patient navigators, the programme also equipped patients with the support they needed to take responsibility for their care journey by providing basic information that had previously been lacking. Psychosocial support given by patient navigators to patients and family members helped create a more comprehensive care experience that provided guidance, increased knowledge, informed decision-making, and reduced delays in both diagnosis and treatment.

By combining human support with digital efficiency, the programme streamlined care delivery, reduced delays, and empowered patients.

Health Service Delivery



2023 ACTIVITIES AND OUTCOMES

- ◆ Established the Patient Navigation Programme in conjunction with the Ministry of Health's Rwanda Biomedical Center for breast and cervical cancer patients.
- ◆ Worked to increase the participation of cancer care nurses in the multidisciplinary teams (MDTs) in five institutions managing breast and cervical cancer patients in Kigali, Butaro, and Butare: King Faisal Hospital, Rwanda Military Hospital, Kigali University Teaching Hospital, Butaro Cancer Centre of Excellence, and Butare University Teaching Hospital
- ◆ Presented to the Ministry of Health, followed by the drafting of a regulation to set up and operationalise MDTs in centres treating breast and/or cervical cancer patients, as well as to define patient pathways and the role of nurse navigators.
- ◆ Kicked off an analysis and dissemination of the cost-effectiveness of the patient navigation project.
- ◆ The Rwanda Biomedical Centre announced their active commitment to fundraise for project extension among their existing partners.

ON THE HORIZON

The Rwanda Biomedical Centre and Ministry of Health have made patient navigation a national priority for the healthcare system and are currently looking to expand the programme to lower care levels.

AREA OF ACTION

Health workforce capacity

Strengthening the skills, instincts, abilities, processes and resources that cities need to deliver quality cancer diagnosis, treatment, and care through capacity development.



2023 HIGHLIGHTS

Cross-institutional collaborations: Scientific visits

- A group of eight experts from Greater Petaling's Breast Cancer multidisciplinary team visit Tata Memorial Hospital in India.
- A cervical cancer surgeon from the Komfo Anokye Teaching Hospital, Kumasi, completes a one-month fellowship at the Aberdeen Royal Infirmary, North Scotland Cancer Networks.
- Four cancer experts from Leon's Cancer Registry Project team visit the Population-based Cancer Registry in Cali for a week-long exchange to better understand the requirements, human resources, processes, and technology needed to establish and improve cancer registries.
- 35 oncology nurses from Tbilisi and Greater Petaling take part in a newly developed blended training programme on cancer patient navigation.

Capacity building workshops

- Cancer registry workshop is held in Leon for 28 participants, led by three national and international experts nominated by IARC.
- Three Leadership and Project Management training workshops are delivered in C/Can cities (Arequipa, Greater Petaling, and Leon), attended by over 30 city project and output coordinators, and local healthcare professionals, to strengthen sustainability of city actions.

Health workforce capacity

Strengthening a multidisciplinary cancer management approach in Latin America

BACKGROUND

In cancer care, the best outcomes are achieved through a collaborative approach known as multidisciplinary care. This model brings together specialists from various disciplines, such as oncologists, surgeons, and nurses, to jointly assess, plan, and manage a patient's treatment plan. By leveraging the expertise of each team member, multidisciplinary care ensures a comprehensive assessment of individual needs and the development of the most effective treatment strategy. This interdisciplinary approach is considered the gold standard for cancer treatment worldwide.

Evidence from LMICs also underscores the value and cost-effectiveness of building capacity for a multidisciplinary approach. It can enhance timely diagnosis, streamline care, and improve patient follow-up. However, widespread adoption in lower-resource settings faces challenges like high patient loads and a shortage of skilled healthcare workers.

PROJECT OVERVIEW

C/Can's data-driven assessments consistently highlight a lack of operational MDTs in its cities. To bridge this gap, C/Can has partnered with the American Society of Clinical Oncology (ASCO) to offer Multidisciplinary Cancer Management Courses (MCMCs) across our global city network since 2019.

The MCMC's effectiveness hinges on practical application. Participants tackle real-world scenarios, like simulated MDT meetings or tumour boards, where specialists work together on patient diagnoses and treatment plans. The courses feature international cancer experts who guide participants through lectures, case presentations, and interactive sessions. Discussions on recent research and current treatment approaches across disciplines also equip healthcare providers to implement a multidisciplinary approach in their own settings.

In late 2023, the C/Can and ASCO partnership delivered the MCMC in Arequipa and Leon, marking the first time these courses were held in these cities.



Health workforce capacity



In Peru we have excellent specialists across different cancer therapies, but treatment decisions are often made in isolation. However, we know that decision-making through multidisciplinary meetings increases the survival chances of cancer patients. That's why the ASCO-C/Can Multidisciplinary Cancer Management Course (MCMC) held in Arequipa was very useful in promoting the value of working together and motivating specialists to integrate this approach into their practice, ultimately benefiting cancer patients in Peru.

DR FERNANDO VALENCIA

Medical Oncologist, Quality and Multidisciplinary Teams Project
team coordinator in Arequipa Peru

2023 ACTIVITIES AND OUTCOMES

- ◆ C/Can and ASCO delivered the inaugural MCMC in Arequipa and Leon in late 2023. These three-day courses focused on managing breast cancer and colorectal cancer with a special focus on multidisciplinary management for cancer care.
- ◆ A team of 16 international and local experts shared their knowledge and experience with 150 healthcare providers. Attendees included a diverse group of specialists, such as radiation and medical oncologists, surgeons, pathologists, palliative care, nurses, and medical students.

ON THE HORIZON

This successful partnership continues to promote the multidisciplinary team approach and best practices in cancer care. C/Can and ASCO plan to expand the programme's reach and impact by offering MCMCs in additional C/Can cities.



AREA OF ACTION

Health financing

Developing smart data-driven investment strategies, providing tools to support local decision makers in allocating resources, and leveraging opportunities for external funding.

2023 HIGHLIGHTS

AREQUIPA AND LEON Local experts conduct a comprehensive mapping of cancer care financing to inform technical teams about financing flows, budget allocations, and coverage gaps. It enables the development of dedicated health financing interventions as part of the C/Can projects, directly led by the local governments.

GLOBAL Although extensive research exists on out-of-pocket expenditures faced by cancer patients, actionable guidance for corrective interventions remains limited. In 2023, C/Can begins work on a recommended set of variables and a systematic review to help cities generate actionable evidence on these expenditures.

SPOTLIGHT

Challenges for cancer patients with private health insurance in Malaysia

Greater Petaling | Malaysia

Equitable cancer care means that every cancer patient has access to quality cancer care no matter their background or financial situation. Unfortunately, the reality falls short of this goal. Cancer patients often face considerable financial hurdles, which are particularly high for patients from lower socioeconomic backgrounds. In a 2023 study published by the Asian Pacific Journal of Cancer Prevention, among 630 cancer patients in three Malaysian hospitals, more than half (54.4%) of the respondents experienced catastrophic health expenditures due to cancer care, disproportionately impacting individuals from minority groups and those with lower levels of education, employment, and income.

Health financing

BACKGROUND

Even with Malaysia's high PHI coverage (22%) compared to the rest of Asia, many cancer patients with PHI still face significant financial burdens. Out-of-pocket expenses and the high cost of private healthcare often deplete insurance benefits before treatment completion. C/Can is working with stakeholders to develop better PHI policies that address these challenges.

PROJECT OVERVIEW

A 2022 needs assessment in Greater Petaling revealed concerning gaps in community and patient cancer care access. Over half of participating patients had private health insurance (PHI) at diagnosis, but over a third still spent a quarter of their income on care despite the insurance. Patients expressed a need for support navigating financial aspects of treatment and a desire for better understanding of their insurance policies. This highlighted opportunities to improve the PHI sector to better serve the city's cancer patients.



When patients exhaust their insurance claims and can no longer continue treatments in the private sector, they face additional financial and care challenges. This includes paying higher fees compared to standard public rates due to the transition from private to public hospitals. They may also need to adjust their treatment plans based on what is provided in public hospitals, as more expensive, innovative treatments are often unavailable.

DR. AINOL HANIZA

Thematic Area Lead for the Health Financing and Affordability Project in Greater Petaling

2023 ACTIVITIES AND OUTCOMES

- ◆ Worked with a local expert to conduct a survey that reveals how cancer patients with insurance are currently navigating their finances.
- ◆ In-depth interviews held with patients, insurance experts, policy experts, and a healthcare provider to find out more about how the insurance landscape can be improved for better access to cancer services.
- ◆ Presented findings to 40 local and international stakeholders in a national workshop held in Kuala Lumpur to collaboratively identify possible solutions.

ON THE HORIZON

The C/Can Health Financing team, in collaboration with the Technical Committee on Health Financing, will form a team of experts and city stakeholders who will use the findings to develop advocacy documents aimed at improving cancer care coverage by private health insurers. This may include developing a basic private health insurance product specifically for cancer care coverage. The final project outputs will be delivered to the City Executive Committee to be used for advocacy efforts for improvement of private health insurance coverage of cancer care.

AREA OF ACTION

Leadership and governance

Connecting and activating stakeholders to build an enabling environment for sustainable cancer care solutions, including policy and regulatory changes.

2023 HIGHLIGHTS

- The Porto Alegre government includes quality measurement indicators in laboratory contracts, a concrete example of the transformative power of good governance.
- Rosario, Argentina, hosts a stakeholder mapping with more than 80 cancer institutions represented from different health and policy sectors, leading to its first City Executive Committee Meeting with 20 decision-makers from the city, regional, and national levels.
- The C/Can LATAM team meets with the national social security president and other administrators during their strategic retreat in Lima to strengthen city stakeholder engagement and provide activity updates, including plans for the 2024 imPACT mission.
- The stakeholder engagement phase kicks off in Abuja with meetings involving leaders from the Federal Capital Territory Administration, the National Institute for Cancer Research and Treatment, and others.
- 10 participants from C/Can cities complete the Leadership Programme for Women in Oncology and begin to see the programme's positive effects on their careers.

SPOTLIGHT

Empowering women oncologists to lead change

Women are the backbone of healthcare, representing almost 70% of the global health and social workforce, yet they only hold 25% of senior positions. This lack of female leadership hinders progress in building sustainable cancer care, especially in LMICs. A growing body of evidence, supported by experiences from C/Can's cities, shows that committed, competent leaders with ownership of a project can be a differentiating factor between those initiatives that last and those that do not.

Women oncologists in C/Can cities are already making significant contributions. To capitalise on this potential and drive further progress, women in C/Can cities must be empowered to thrive as leaders. This will enable them to lead a shared vision of equitable and quality cancer care for all, while inspiring others to contribute to this crucial change.



Leadership and governance

PROJECT OVERVIEW

C/Can’s experience in LMICs has highlighted the critical role of local leadership, ownership, and capacity building for long-term success. However, women oncologists in these regions face significant challenges, including:

- Limited access to research, education, and funding
- Time constraints for pursuing further studies
- Burnout and heavy workloads
- Economic hardships
- Lack of confidence in leadership roles, communication skills, and training

There is a clear need to support women with the required skills, networks, and opportunities to advance their career so that they are more able to effect lasting change in cancer care.

To address this need, the Leadership Programme for Women in Oncology (LPWO) was launched in 2022. This programme, provided in partnership with ASCO, equips mid-career female oncologists in LMICs with the skills and support they need to become impactful leaders.

The intensive 18-month programme offers a blend of learning experiences, focusing on the strengthening of key skills for change-makers, such as critical thinking, problem-solving, communication, leadership, adaptability, and emotional intelligence. The programme included:

- Virtual sessions: Monthly sessions across six months hosted by ASCO covering a diverse range of leadership development topics aimed at fostering a growth mindset and essential skills.
- In-person workshops: Participants convened at two global events at the commencement and completion of the course (World Cancer Congress in Geneva and the ASCO Annual Meeting in Chicago).
- Mentorship: Graduates received ongoing guidance for a full year through ASCO alumni and Roche mentors, who offered support in implementing their learnings, developing innovative approaches, and advancing cancer care initiatives in their cities.

By investing in women who are making a difference in cancer care in their communities, the LPWO is paving the way for a new generation of female leaders in cancer care.



I learnt the power of connection and speaking up. I learnt that we are all leaders and leadership is a journey.

As women leaders, we have a unique opportunity to bring about meaningful change in the cancer space.

DR HELEN MUSAU
LPWO participant, Nairobi

Leadership and governance



2023 ACTIVITIES AND OUTCOMES

- ◆ From January to June, participants participated in virtual sessions focused on strengthening leadership skills. They also had the opportunity to interact with oncology experts and other leaders, gaining valuable insights and fostering a supportive network.
- ◆ In June, the programme culminated in a final workshop at the 2023 ASCO Annual Meeting in Chicago. Participants presented their group projects to leaders from their countries, and the programme concluded with additional training in communication skills and conflict management.
- ◆ All 10 participants from C/Can cities (Arequipa, Asunción, Cali, Greater Petaling, Kigali, Kumasi, Leon, Nairobi, Porto Alegre, and Tbilisi) successfully completed the programme.
- ◆ Since July 2023, graduates have benefitted from a 12-month mentorship programme. Each leader received guidance from two mentors, one local and one through the ASCO Virtual Mentoring Programme. This support helps leaders translate their learnings into action, develop innovative approaches to cancer care, and inspire projects within their cities.

AS A RESULT OF THE LPWO PROGRAMME

- * 100% of participants reported improved work performance and confidence, with communication with patients and teams significantly improved.
- * Half of the participants secured leadership positions, including as hospital department heads and university lecturers.
- * Inspired by the programme, one participant enrolled in a master's programme in Global Health and another participant attended the CReDO (International Collaboration for Research methods Development in Oncology) Workshop in India.

ON THE HORIZON

The LPWO is creating a wave of change. With the next application cycle launching in 2024, and the continued support of the first cohort, even more women will be empowered to lead the way in stronger cancer care in C/Can cities and beyond. This forms part of C/Can's broader efforts to close the gender gap in cancer care, in response to the Lancet Commission on Women, Power, and Cancer recommendations.

AREA OF ACTION

Health information systems

Developing tools and guidance, including digital, to enhance the availability, quality, and sharing of data and insights, and to strengthen cancer surveillance.

2023 HIGHLIGHTS

TBILISI Policy guidance to harmonise the quality of data collection, data synchronisation, completeness, and dissemination, provided by cancer care institutions to the National Center for Disease Control and Public health is drafted and submitted to the Ministry of Health for approval. Additionally, an advocacy document for streamlining patient data authorisation is drafted and submitted.

ASUNCION Open source software is developed to support the decision of a multidisciplinary committee on breast cancer treatment modalities and track patients as they access chemotherapy treatment. The software is already integrated with the national Health Information System and further interoperability with key software planned.

SPOTLIGHT

Improving childhood cancer outcomes in the city of Kumasi and the Ashanti Region

Kumasi | Ghana

While late-stage presentations, delayed referrals, and high mortality due to treatment side effects are major barriers to equitable childhood cancer care globally, limited access to resources creates a particularly dire situation in LMICs.

Children with cancer in these regions often receive less medical attention compared to adults. However, there's a real opportunity to change this as the city of Kumasi, Ghana, demonstrates the positive impact of targeted interventions. By developing a specialised app and training healthcare workers to recognise early symptoms, the city has significantly increased timely referrals for suspected paediatric cancer cases, resulting in a 2.5-fold increase in the number of referrals year over year. This success story highlights the potential for improved childhood cancer survival rates in LMICs through early detection and timely access to care.

Health information systems

BACKGROUND

Ghana faces a significant challenge in diagnosing childhood cancers. Limited awareness of symptoms and delays in referrals often hinder timely access to treatment. While these cancers aren't typically preventable, early detection and treatment are crucial for improving survival rates.

The country has two paediatric oncology centres: one located in Kumasi (established in 1998 with just 19 beds) and the other in the country's capital, Accra. Reliable data on childhood cancer incidence in sub-Saharan Africa, including Ghana, is scarce due to the lack of population-wide cancer registries. However, estimates suggest an annual incidence rate between 80 and 150 cases per million people worldwide. In Ghana, about 150 to 250 yearly cases are reported in the two paediatric oncology centres.



The project has given me an idea on how to suspect and refer cancers and has enlightened me that children can also get cancer. I have benefited a lot and can now differentiate between normal growth and cancers in children.

A healthcare worker in Ashanti

Health information systems

PROJECT OVERVIEW

In 2022, a collaborative project led by local health stakeholders launched to improve childhood cancer care in Kumasi and the Ashanti Region. This initiative created a network of 24 healthcare facilities that could be easily connected to the Komfo Anokye Teaching Hospital (KATH), the central location for paediatric specialists. This network aimed to ensure continuity of care and reduce treatment abandonment. A mapping was also conducted to identify care sites equipped to provide continued treatment for confirmed cases after initial diagnosis.

To streamline referrals, the project introduced the locally developed Oncokids app. This user-friendly app, built upon the existing paper referral format, allows healthcare providers at these 24 sites to directly refer suspected cases to KATH's paediatric unit. The app also includes a reminder system to follow up with patients who don't show up for appointments, ensuring continuity of care.

The app eliminates the need for slow and cumbersome paper referrals. A survey conducted after the project's launch revealed a significant shift, as healthcare facilities felt confident and empowered to make direct referrals through Oncokids, bypassing the previous system that caused delays. This resulted in a surge in referrals, from just eight in the previous year to 28 (though six used alternative methods). The overall increase in referrals highlights the app's positive impact.

2023 ACTIVITIES AND OUTCOMES

- ◆ Created a referral network of 24 institutions.
- ◆ Trained over 120 health professionals on symptom awareness.
- ◆ Designed a custom app based on the previous paper referral system.
- ◆ Conducted a survey among facilities who received the training to better understand the barriers to using the Oncokids app and the likelihood of its continued use.



ON THE HORIZON

The project is due to be expanded in 2024, with 26 additional facilities to become part of the network and trained to use Oncokids and detect symptoms.

A further 200 healthcare workers will be trained across the Ashanti Region.

An e-learning course on childhood cancer for healthcare workers will be rolled out in collaboration with C/Can partner the Catalan Institute of Oncology (ICO).

AREA OF ACTION

Access to medicines and technology

Providing cities with support in the implementation of their prioritised health service delivery solutions to improve access to essential oncology medicines and achieve better patient outcomes.

2023 HIGHLIGHTS

Collaboration with Amgen is extended for five years with a \$5 million commitment to advance access to cancer care medicines in four C/Can cities.

SPOTLIGHT

Readiness for access to oncology medicines

Asuncion | Paraguay

Many people in LMICs face a harsh reality: life-saving medicines are often out of reach. However, access to medicines does not simply mean having medicines available. Inadequate and sub-optimal coordination among cancer care services inhibits those medicines's ability to generate their intended patient outcomes. This lack of access stems from a number of challenges, including ill-equipped cancer care facilities with insufficient infrastructure and a shortage of trained healthcare workers, translating to missed opportunities for treatment and poorer patient outcomes.

Launched in 2022, C/Can's Readiness for Access to Oncology Medicines Programme aims to address some of these challenges. It builds on the foundational work C/Can cities do to operate and coordinate networks of healthcare providers. This work empowers cities to strengthen local cancer care networks, harmonise clinical practices, and develop essential city health service expansion plans to increase their ability to make the most effective use of oncology medicines.

Access to medicines and technology

The programme focuses on the “last mile” of delivery by strengthening healthcare systems and facilities in three key areas:

Upskilling key cancer care professionals to lead implementation within their institution

Upgrading critical physical and technological health service infrastructure within the city network

Implementing quality improvement processes that facilitate multidisciplinary care and patient care

This long-term approach builds on existing C/Can city project outcomes and outputs, and complements third-party access programmes (donations, agreements, price reductions) by building sustainable local healthcare systems that are capable of delivering timely and quality cancer therapy and, ultimately, improved health outcomes.



The C/Can Readiness for Access to Oncology Medicines programme had a transformative impact on our Anatomic Pathology service. The project extended far beyond providing cancer medicines, it optimised every stage, from receiving samples to analysis, and achieved the long-held dream of digitising the service.

This initiative sets a lasting precedent for high-quality laboratory standards in our country, which ultimately benefits our patients.

DR. CINTHIA SOSA
Pathologist, INCAN



Acess to medicines and technology

PROJECT OVERVIEW

The fragmented nature of Paraguay's healthcare system frequently creates delays in cancer diagnoses. Data sharing across multiple institutions is challenging, resulting in cumbersome patient journeys and often leading to missed or delayed diagnoses, which negatively impact patient outcomes.

In response, C/Can partnered with Direct Relief with support from Amgen in 2022 to launch a pilot project in Asuncion, focusing on ensuring affordable access to essential medicines for HER2-positive breast cancer patients while improving the quality of diagnosis within the public healthcare system. The project aims to:

- ◆ Implement quality control measures across diagnostics, treatment, drug delivery, and data systems to improve institutional workflows and increase quality, efficiency and effectiveness of treatment
- ◆ Enhance information systems by upgrading systems in participating public hospitals to improve the patient journey and ensure quality and timely delivery of pathology reports and cancer drugs.

Working with five institutions, including the National Institute of Cancer (INCAN), the Clinicas Hospital from the Faculty of Medical Sciences of the National University of Asunción (HC-UNA), the National Hospital of Itaugua (HNI), the San Pablo Women and Children's Hospital (HSP), and the Central Laboratory of Anatomic Pathology, the programme is helping to deliver:

Patient tracking software for improved monitoring

Improved sample handling and tracking

Medical supplies and equipment

Health service renovations and upgrades

Training for healthcare professionals

While the programme began as an opportunity to donate essential breast cancer medicines from Amgen, with implementation support from Direct Relief, it helped catalyse a broader focus on quality health service delivery. By establishing a sustainable, structured, and measurable system for ongoing access to medicines, this will help ensure the right patients receive the right medicines at the right stage of their treatment.



Access to medicines and technology



2023 ACTIVITIES AND OUTCOMES

- ◆ Improved laboratory pre-analytical/pre-examination processes to guarantee sample quality, traceability, and diagnostic accuracy.
- ◆ Two pathology laboratories were fully renovated, improving the staff working conditions, and boosting the capacity to process samples and deliver pathology reports.
- ◆ Upgraded four pathology laboratories to meet quality standards defined by the city and aligned with international standards.
- ◆ Implemented quality control processes, reducing the turnaround time in pathology reporting from 45 to 15 days on average.
- ◆ Improved the patient experience by upgrading patient-dedicated infrastructure at main healthcare facilities.
- ◆ Thanks to the improvement of infrastructure, more than 8000 patients have access to safer spaces, and more than 100 healthcare workers have better working conditions

ON THE HORIZON

The programme has fostered a close collaboration with the Quality Department within the Ministry of Health. This partnership has elevated quality improvement as a central agenda for Paraguay's government, ensuring the ongoing sustainability of these efforts.

Extended support from Amgen will enable the initiative to expand to three additional cities across Africa and Asia, with the implementation of structured service readiness plans based on local priorities. The next expansion is set to commence in Kumasi, Ghana, where the Readiness Programme will be rolled out to support advancing local cancer care priorities.

06

C/Can voices

Dr Tamar Gabunia

Dr. Tamar Gabunia, First Deputy Minister, Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, shares her views on C/Can’s approach to sustainability, and the critical role of national governments to lead such efforts from the point of view of a government leader.



Today, in many countries, governments are navigating a complex, and rapidly evolving health landscape. Health systems are being stymied by multiple health crises, rising noncommunicable diseases and cancer cases, growing inequities in healthcare access and constrained resources.

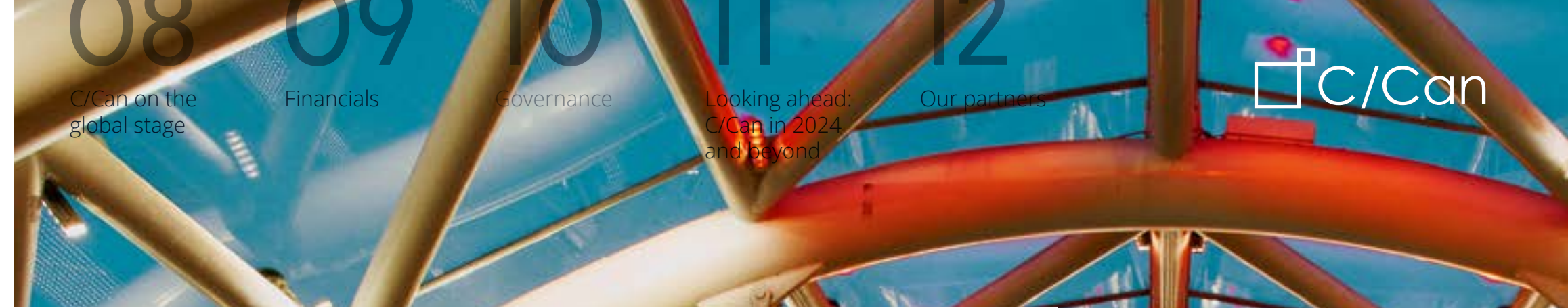
As the First Deputy Health Minister for Georgia, I am witnessing first-hand how countries are contending with these global health challenges. Cancer remains a big challenge for Georgia.

To bridge these disparities and promote equitable health outcomes, we recognise the critical importance of strategic planning anchored by sustainability—a cornerstone of the C/Can model. We actively collaborate to improve cancer diagnostics and outcomes.



As the first European city to join the global C/Can network in 2019, Tbilisi, Georgia has emerged as a powerful example of how sustainable cancer care can transform lives.

Over the past four years, Tbilisi has mobilised over 170 healthcare professionals, alongside 100 patients from 27 public and private institutions to meet the city’s cancer care needs. This multisectoral approach has resulted in a robust needs assessment and an accompanying city roadmap—the first-of-its-kind strategic blueprint to address the city’s identified gaps in cancer care.



With the support of C/Can, six prioritised city projects have been completed, each one strengthening various aspects of the cancer care infrastructure in Tbilisi—from education and professional training, cancer management guidelines to community access—with patient benefits always central to our efforts.

The Ministry of Health has been an integral part of this journey since the beginning, championing these projects and setting the stage for national scale-up. As we enter the sustainability phase, with C/Can as a valuable partner, we are well-positioned to leverage the C/Can model as a framework to design and implement a sustainable model for action to extend the success of the C/Can initiative beyond Tbilisi.

Our commitment to lead the sustainability phase underscores the critical role that governments play in sustaining and scaling such transformations. However, lasting change does not hinge on government action alone; it demands sustained funding, capacity development, public policy changes, and collaboration among all stakeholders.

A new consortium of leaders, cancer experts and local stakeholders will also be established with the support of C/Can. The group will be instrumental in the implementation of the city projects, including resource mobilisation, and the monitoring and evaluation of results to assess progress towards sustainability. We will be investing in a dedicated team to manage, and enact sustainability activities, as well as hosting C/Can’s City Manager for a year, ensuring continuity, knowledge transfer, and synergy essential for the implementation of the sustainability plan.

We hope that Georgia’s efforts will serve as a model for other cities and countries seeking to embed sustainable cancer care within their own healthcare systems. This sustainable approach is rooted in embedding solutions within existing health systems and fostering cross-sector collaboration. By partnering with city stakeholders, private sector supporters, and local communities we have the best chance of achieving long term gains. Our focus remains centred on better outcomes and longer, healthier lives for our country’s cancer patients.





Dr Raul Doria

Director of Paraguay's Instituto Nacional del Cáncer (INCAN), shares his reflections on Asuncion's seven-year collaboration with C/Can, highlighting the transformative progress in cancer care and the key initiatives that have driven these advancements.

In 2017, Asuncion took a bold step as one of the first cities to join C/Can. The commitment was clear and the goal was ambitious: to transform a fragmented system into one that is cohesive and patient-centred. The transformation of Asuncion, and by extension Paraguay, in addressing cancer care has been significant. Key partners, including the Ministry of Public Health and Social Welfare, the Faculty of Medical Sciences of the National University of Asuncion, the Social Security Institute, the San Roque Group, and C/Can, have all played crucial roles.

Seven key projects were identified by the C/Can City Executive Committee, focusing on strengthening pathology, radiotherapy, and multidisciplinary care to address critical gaps identified by the original C/Can needs assessment process for Asuncion. These gaps included a variation in standards, gaps in the training of healthcare professionals, and disparities in the way data was handled between sites. Over time, such fragmented cancer treatment had eroded patients' trust in hospitals, and those with the resources to do so were often motivated to seek treatment outside the country.

The projects have since produced nine priority solutions that are enabling Asuncion to move beyond fragmented cancer care, embrace a connected approach to health systems, and ultimately rebuild patient trust.

We began with laying the foundation: focusing on developing processes and guidelines. A significant challenge we faced was improving the processes involved in anatomical pathology: for example, it used to take an average of more than 40 days to take, process, and report on a tissue biopsy. Now, thanks to improvements in infrastructure, human resources, and digitisation, reports are provided in less than 15 days, with the aim of further reducing this time to five days.

Digital projects have driven innovation by transitioning from manual processes to completely electronic ones. This has significantly improved response times and access to patient tracking information, acting as a catalyst for further digital transformation projects.

These formative activities contributed to the enactment of the first National Cancer Law in 2019—a major milestone for cancer care in Paraguay. The law outlines an integrated approach for quality cancer services and established a multisectoral National Cancer Advisory Board, among other key provisions aimed at achieving comprehensive cancer care. One of the most significant impacts of this law was the exponential increase in the budget for purchasing oncological drugs.

Throughout the C/Can process of building solutions, stakeholders have participated in courses, workshops, and technical visits to specialised hospitals, with the aim of strengthening technical knowledge and generating new models of care, and have had the opportunity to take part in international congresses, where they've presented their success stories and knowledge gained.

“In my 35-year career, we have progressed from chemotherapy to immunotherapy to monoclonal antibodies, continuously advancing and making significant impacts to improve the prognosis of this disease.

Unfortunately, over 70% of the cases presented at INCAN are already in stage 4, where, no matter how advanced the treatments, the outlook for the patient is poor. This underscores the need to raise awareness because we have methods for early detection and, thanks to C/Can's support, guidelines for the four most common types of cancer. In the case of cervical cancer, in previous years, we conducted an average of 5,000 to 10,000 HPV tests nationwide. In 2023, we conducted 200,000 tests and have already begun working with the Governor's Office to cover a significant percentage of the population, as part of the national HPV vaccination programme.

The progress we've made and the work we've done in Paraguay has been greatly assisted by C/Can over the years. I believe that C/Can's success in encouraging and facilitating multisectoral collaboration should serve as a model for healthcare in general, not just in cancer, and that while we will continue to face significant challenges in the future, the projects developed with C/Can are going to be instrumental in overcoming them.



Asuncion
Paraguay



07

Cross-cutting initiatives: Global Breast Cancer Initiative

Putting evidence into action: C/Can and the WHO unite to take on breast cancer in LMICs



DR. BENJAMIN ANDERSON

Global Technical Lead
for Breast Cancer, C/Can

Breast cancer's impact is profound. It's the most diagnosed cancer globally and the leading cause of female cancer deaths (almost 95%) in most countries. With a staggering 2.3 million new cases identified worldwide each year, a number projected to climb to 3 million by 2040, and an estimated 1 million deaths annually, the human cost is immense.

No country can afford to ignore breast cancer if they aim to seriously address cancer as a public health crisis. Recognizing this, the World Health Organization (WHO) launched the ambitious Global Breast Cancer Initiative (GBCI) in 2021. Its goal? A 2.5% annual reduction in breast cancer mortality, potentially saving 2.5 million lives over two decades.

The roadmap for achieving this goal is the GBCI Framework, developed by a coalition of 150 global experts and published on International Women's Day 2023. This framework outlines resource-appropriate strategies for countries, including capacity building, increased access to care, and women's empowerment. The focus is on strengthening health systems with a specific emphasis on women's health and gender equity.

Effective implementation hinges on translating evidence into action. While higher-income countries have seen a remarkable 40% drop in breast cancer deaths since the 1980s, many already reaching the GBCI's 2.5% target, the outlook in low- and middle-income countries (LMICs) is less encouraging. Patients there face significant barriers to care. Strategies must be translated into actionable plans that can be realistically implemented on the ground.

To meet this need and ensure the GBCI Framework reaches its full potential, the WHO and C/Can seized the opportunity at the 2023 World Health Assembly to announce a collaboration for its implementation.

The project leverages C/Can's expertise, starting at the city level with the goal of gradually implementing the Framework at regional and national levels. Central to its success is developing the capacity of policymakers, clinical champions, operational managers, and patient advocates on the effective implementation of the GBCI Framework within their own health system settings. Equipping these stakeholders with critical knowledge and skills enables them to play pivotal roles in putting evidence into practice.

In 2023, Tbilisi, Georgia became the first city to begin implementing the GBCI Framework. To lay the foundation, C/Can and the WHO organised a workshop in December 2023 with the support of the Georgian Ministry of Health, which brought together a group of the city's clinical experts to define and refine actionable strategies for implementing the Framework and prioritise projects and services with the most urgent needs. The workshop generated insights that informed the development of an action plan, with further activities planned to monitor the plan's progress.

As the project rolls out, workshops will be held in other C/Can cities to better understand local needs and form the basis of an evidence-based guide for implementing the GBCI Framework in other countries' resource settings.

This progress is encouraging, yet challenges remain, including resource limitations, inadequate dedicated funding, personnel shortages, and time constraints. The lack of monitoring and evaluation frameworks required for data collection and analysis to assess impact is another significant hurdle. But the strength of the collaboration between C/Can and the WHO, along with the unwavering commitment of stakeholders, means that these obstacles can be overcome. What matters most is that the GBCI Framework has opened a new path to a better future for breast cancer patients, where building capacity is prioritised, stakeholders are empowered, and women everywhere have the best chance at a long and healthy life.



Cross cutting initiatives: Quality indicators for cancer care

Cancer is a leading cause of death globally and its burden in terms of incidence-mortality index falls especially hard on LMICs. While late stage of presentation, protracted diagnosis and limited access to or availability of all the major modalities of treatment (surgery, radiotherapy, chemotherapy, and supportive and palliative care) contribute to poor and inequitable outcomes, significant variations in the quality of the available cancer services also play a major role. Despite this, the quality agenda in cancer has been much neglected in the literature and national cancer control planning.

As part of its mission to deliver better and more equitable cancer care worldwide, C/Can is supporting cities' efforts to improve the quality of the care they provide with the mantra "what gets measured gets done" at the forefront. The first step of the partnership with the Institute of Cancer Policy, King's College London (ICP) was to develop a clear consensus on quality indicators in LMIC settings. A tool that cancer care providers can use to identify quality gaps and areas for improvement, thereby setting their own priorities for locally led quality

improvement programmes. Only through effective measurement can true performance assessment and benchmarking take place. Subsequently, working together systematically as a team to resolve the issues this work uncovers should translate into incremental reductions in variation, improved safety, and quality of patient-centred care.

In the past decade we have witnessed a significant increase in the number of countries with national cancer control plans and an increase in comprehensiveness of their content. The time is therefore right for contextually relevant quality indicators that are feasible to collect and facilitate the ongoing assessment which is crucial for evaluating cancer care services at facility, sub-national, and national levels. Beyond the obvious benefit of improving outcomes for patients, data-based quality assurance and improvement initiatives can also inspire trust in the health system by improving transparency and demonstrating that funding is delivering desired systems level outcomes.

It's not just about access to cancer care for patients; they also need and deserve high-quality care for the best outcomes. Quality indicators for cancer care are a breakthrough in delivering quality through routine services.



**RICHARD SULLIVAN,
AJAY AGGARWAL
& JULIE TORODE**

Institute of Cancer Policy,
King's College London

However, the complex nature of cancer care, combined with data limitations in LMICs, can make it difficult to identify the right levers for making improvements and reporting impact. The second phase of the C/Can and ICP partnership is taking on this challenge. International standards and benchmarking exist for assessing healthcare more generally based on the Donabedian model, but this has been mostly developed in higher-income settings. C/Can and the ICP aim to validate a set of quality indicators for resource-constrained settings resulting from the first phase of the partnership, seeking to provide meaningful data beyond simply evaluating metrics such as the number of hospitals, doctors, and nurses, while remaining practical enough for institutions just starting out on their quality improvement journey.

To include the wider cancer community in the process, C/Can, the ICP, and the WHO hosted a side event at the 2023 World Health Assembly to socialise the value, opportunities, and challenges in measuring changes in quality of cancer care in lower-resourced settings.

This comprehensive process included multiple stages: a systematic literature review, which identified an initial set of 216 potential indicators; workshops with global clinical

leaders and cancer centre directors, and multi-country surveys that involved 149 experts from 59 countries, delivering a framework of nine tier 1 quality indicators. The core set of nine quality indicators encompass the entire patient journey and range from diagnosis to treatment completion, including, for example:

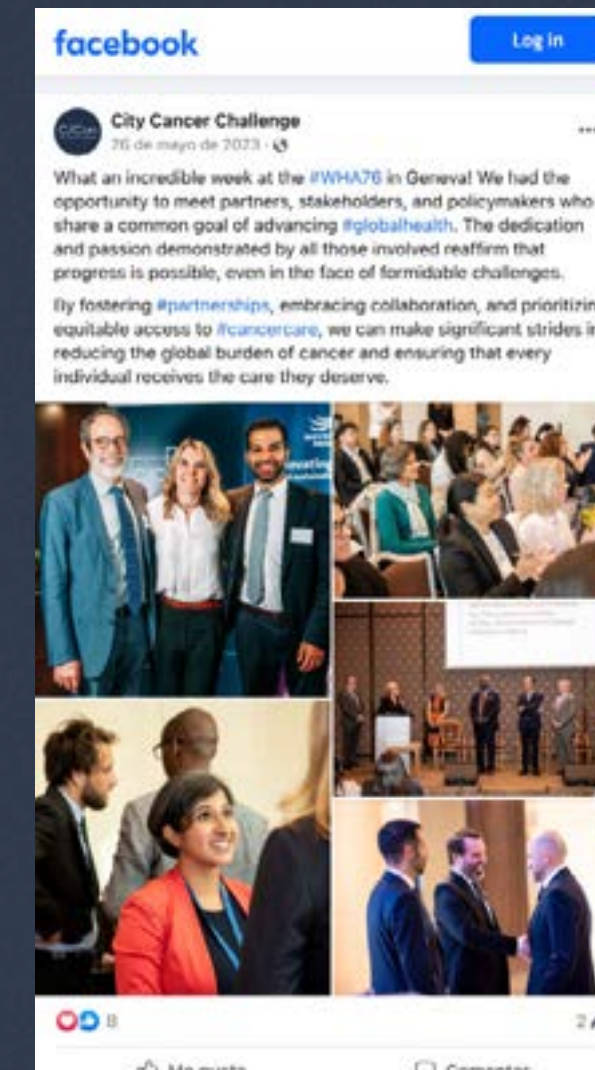
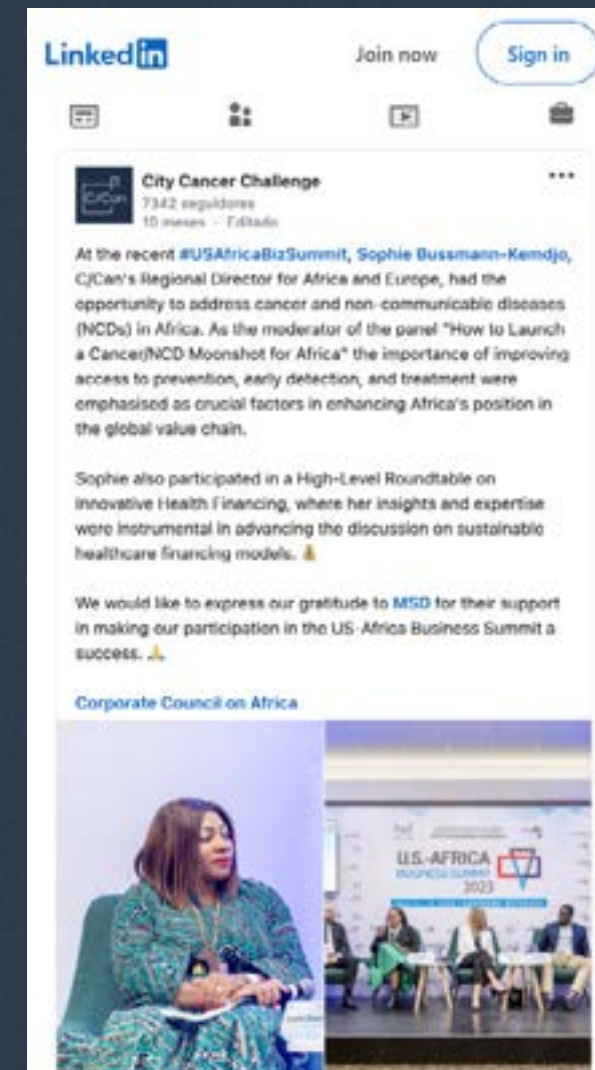
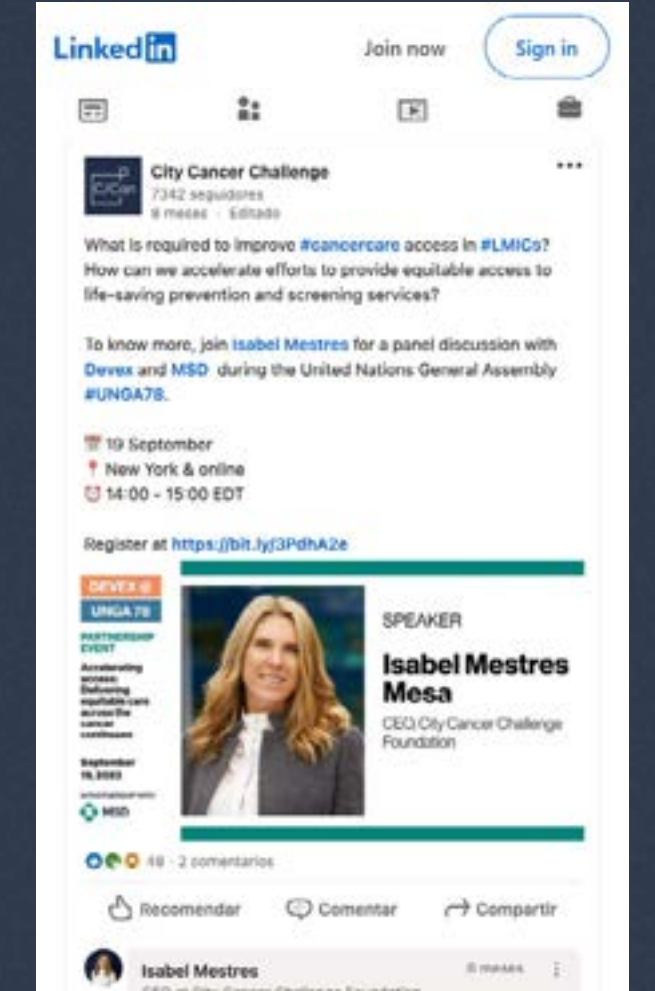
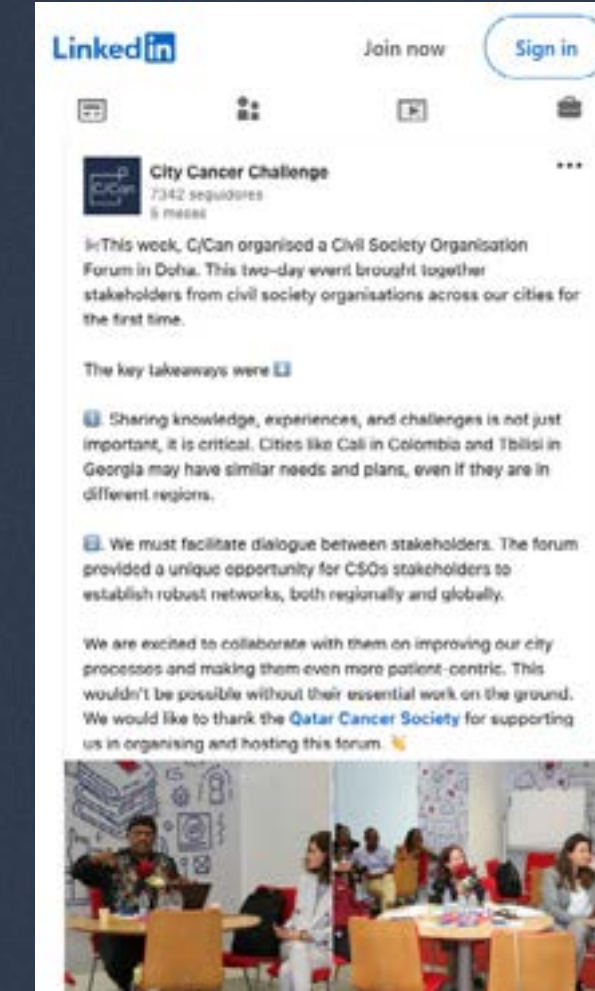
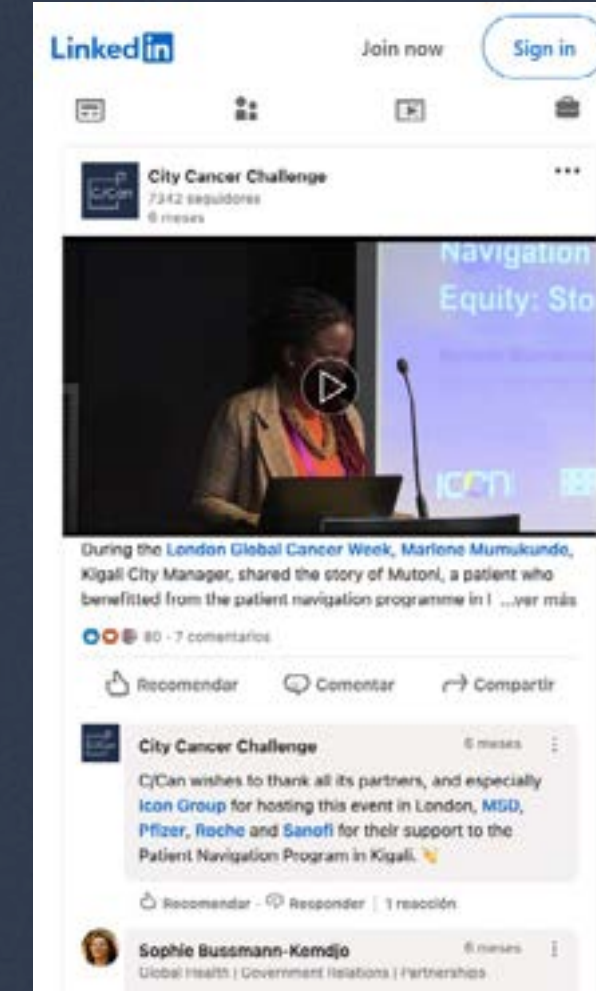
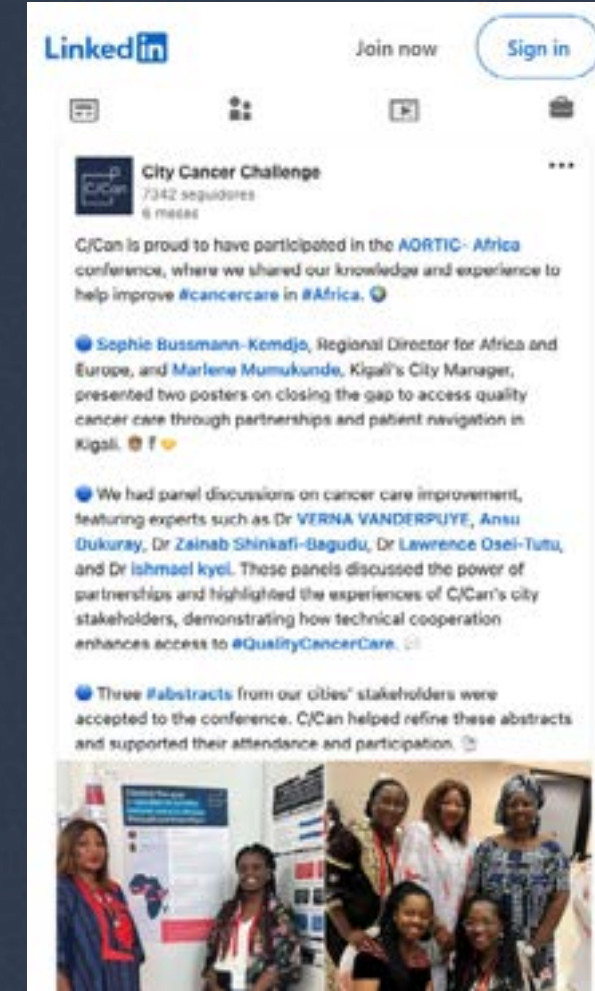
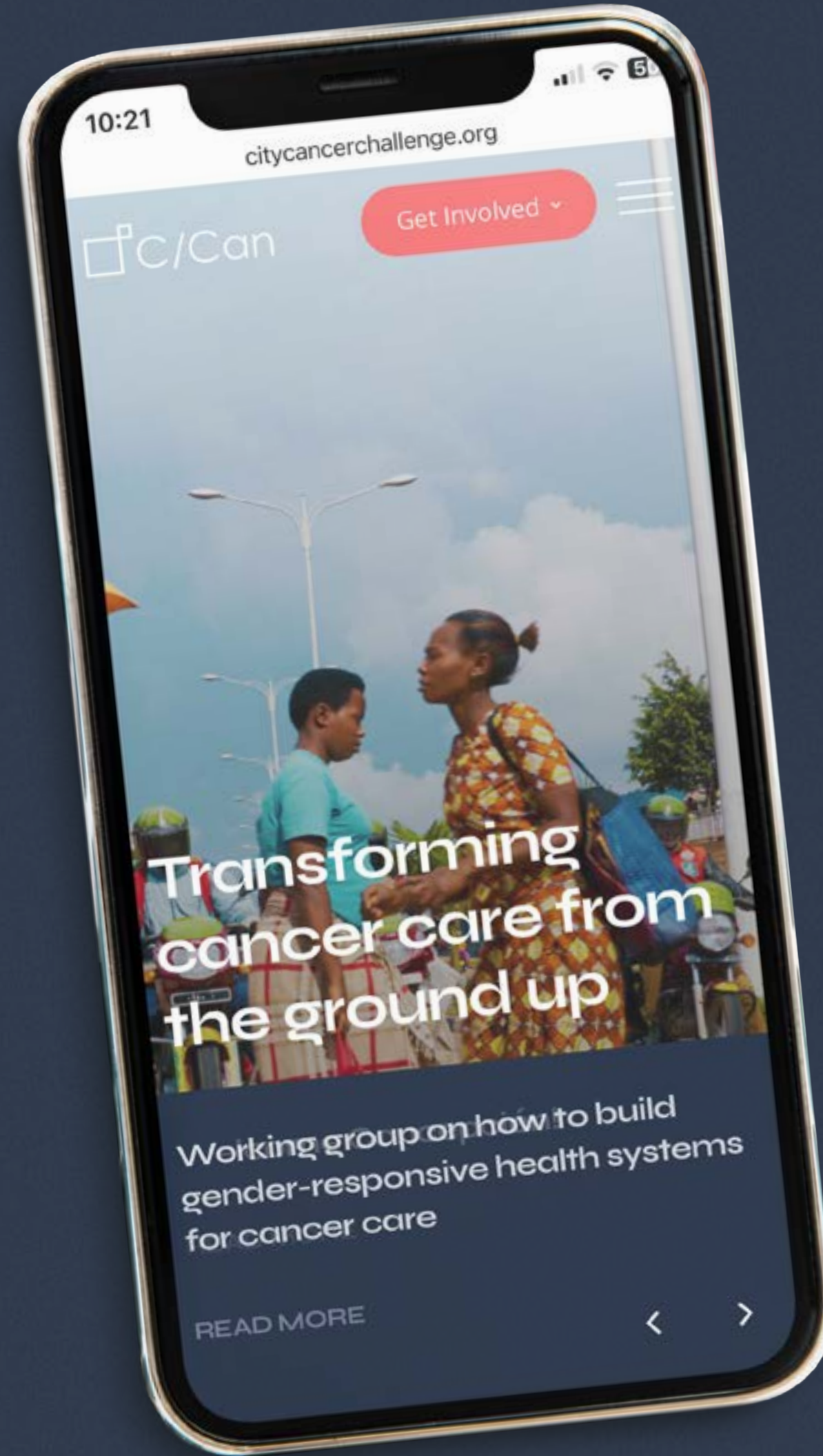
- ◆ Time between diagnosis and treatment initiation (needed for avoiding cancer progression)
- ◆ Proportion of patients who have undergone complete tumour staging (needed for treatment planning)
- ◆ Completion rates for radiotherapy and chemotherapy treatment (needed for optimal outcomes)

This initiative represents the first international consensus, published in the prestigious journal *The Lancet Oncology*, on a core set of hospital-based quality indicators for cancer care services in LMICs. The framework includes relatively easy-to-establish first steps and further recommendations of tier 2 and 3 indicators, thereby offering a common approach for institutions across cities to collect, share, and communicate data on the quality of cancer care.

C/Can and ICP recognise the need to adapt the quality indicator set based on local factors, including disease burden, resource availability, and stakeholder perspectives on defining quality. It also acknowledges the importance of establishing a national quality assessment programme, including considerations for data collection, feedback mechanisms, and prioritising care gaps.

C/Can and ICP will be therefore piloting implementation of the framework in two C/Can cities, Greater Petaling and Arequipa, in 2024-25, following city level work to define the scope and approach of these demonstration projects. The results of these pilot projects will provide useful experience to inform wider evaluation of cancer services in other LMIC settings and serve as a crucial step toward empowering hospitals and care providers around the world to identify gaps, set ambitious goals, and ultimately improve quality of care. And women everywhere have the best chance at a long and healthy life.

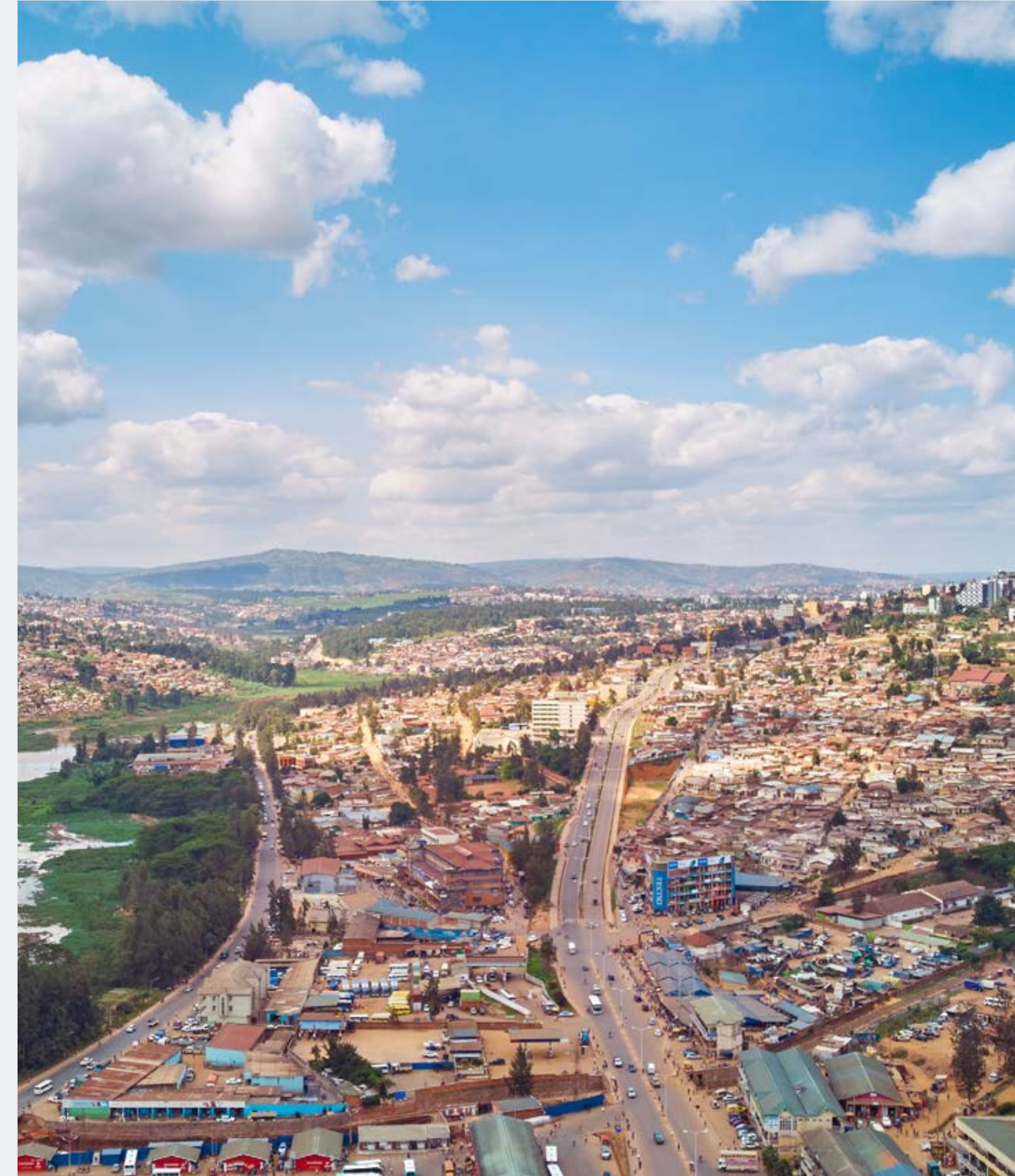
08 C/Can on the global stage





09 Financials

C/Can's **financial statements** provide a comprehensive overview of our Foundation's financial health over the past fiscal year. The 2023 Statutory Financial Statements were audited by PricewaterhouseCoopers SA.



10 C/Can governance

C/Can is a non-governmental organisation governed by its Board of Directors composed of 9 directors who act as the executive body of C/Can. At its head is the President of C/Can, a position currently held by Jörg Michael-Rupp.

Professor Sanchia Aranda AM's term as President came to an end in 2023, and we would like to express our heartfelt gratitude for her contributions to C/Can since 2019. Her dedication and shared experiences have been instrumental in shaping our remarkable journey together.

Jörg-Michael Rupp

Roche Pharma International



Valentina Gizzi

Edwards Lifesciences



Guillermo Rivera Rio



Justin Abbott



Mary Gospodarowicz

University of Toronto



Andrew Whitman

Varian, A Siemens Healthineers Company



Stuart Bennett

Al Sharq Healthcare



Nneka Mobisson

mDoc



Sanchia Aranda

University of Melbourne



HONOURARY BOARD MEMBER

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Looking ahead:
C/Can
in 2024
and
beyond

A letter from C/Can Chair

Jörg Michael-Rupp

Chair, City Cancer Challenge Foundation



According to the latest data from the International Agency for Research on Cancer, cancer cases are projected to surge by 77% by 2050—a jump that would represent a staggering 35 million diagnosed cases. History also tells us that too much of that burden will be borne by LMICs.

It's a daunting prospect. At the same time, we can't let statistics define our future. Our fate isn't set in stone. In the past year alone, the work of C/Can has yielded incredible progress, from earlier diagnoses to shorter time to treatments and, importantly, streamlined health systems.

This is a testament to the beauty and power of the city-level approach, as we leverage these vibrant hubs of data, expertise, and innovation to gain a unique system-wide perspective, close critical care gaps, scale and replicate our efforts, and make important inroads in addressing the almost impossibly complex challenge of cancer.

That is real progress, and now it's time for C/Can to build on the momentum. Every success, every obstacle, every hard-won lesson: these are the building blocks for an impactful future. But to keep delivering results we must never stop moving and adapting.

There will be pressure to achieve short-term results at the expense of long-term impact. Unforeseen economic and geopolitical barriers will appear in our path. But if 2023 has shown us one thing it's that we've laid the groundwork necessary to rise to and overcome these challenges.

In 2024 and beyond, we will continue to expand our network of cities, generate new knowledge, and turn data into actionable insights. C/Can has a valuable opportunity to fine-tune our approach to measurement, better understand how to effectively measure progress for each of our cities, deepen our critical partnerships, and launch new initiatives aimed at everything from strengthening local implementation to building research capacity to incorporating gender-responsiveness into health systems worldwide.

We've seen what our combined efforts and strong strategic vision can accomplish—and we're ready for more. Together we have the chance to take our work to unprecedented levels. By following the lead of cities, by listening to their priorities, addressing their gaps, and leveraging their strengths, we can continue to cement C/Can's reputation as a health expert on the global stage, and to make even bigger strides towards our vision of a world with quality cancer care for all.



12 Our partners

We partner with city, regional and national organisations, professional associations, academic institutions, private sector companies, foundations, UN agencies and non-governmental organisations (NGOs). They are all linked by the common desire to support cities as they work to improve access to quality cancer care, by providing expertise, financial and/or in-kind support.

African Palliative Care Association

ALLM Inc.

American Society for Clinical Pathology

American Society of Clinical Oncology

AMGEN

Asian National Cancer Centers Alliance

Asociacion de Laboratorios Farmaceuticos de Investigacion y Desarrollo

Asociación Latinoamericana de Cuidados Paliativos

Asociación Mexicana de Industrias de Investigación Farmacéutica (AMIF)

Asociación Nacional de Laboratorios Farmacéuticos (ALAFARPE)

Astellas

AstraZeneca

BeiGene

Boehringer Ingelheim

Bristol Myers Squibb Foundation

Bristol Myers Squibb

Catalan Institute of Oncology

CEDAP

Chugai

Clinton Health Access Initiative

Direct Relief

eCancer

ECHO Institute

European Society Radiation Oncology

FIFARMA

Fred Hutchinson Cancer Center

Geneva Cities Hub

Geneve internationale



GIZ

Health Finance Institute

Hospital del Mar

Icon Group

Instituto de control de governanca de cancer IGCC

Institute of Palliative Medicine / WHOCC

International Atomic Energy Agency

International Federation of Pharmaceutical Manufacturers and Associations

International Finance Corporation

International Society of Nurses in Cancer Care

Islamic Development Bank

Mayo Clinic

Merck Sharp & Dohme - MSD

National Cancer Center Japan

Novartis Pharmaceuticals Corporation

Pfizer

ProPacífico

Rad-Aid International

Republique et Canton de Geneve

Roche

Sanofi

Siemens Healthineers

Sociedade Brasileira de Patologia

Swiss Development Cooperation

Tata Memorial Hospital

UN Habitat

UNITAR

Universidad del Valle

Varian

World Bank

World Health Organization

World Child Cancer

World Hospice and Palliative Care Alliance



C/Can

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