ICCP Project ECHO

Using Data for Policy Decision-Making: perspectives from C/Can

Thet Ko Aung, aung@citycancerchallenge.org
Senior Manager Technical Cooperation
C/Can · City Cancer Challenge
www.citycancerchallenge.org

Outline

1. Brief intro on C/Can
2. C/Can insights on data to planning solutions
3. Case studies: multisectoral collaboration for data-driven resource allocation
4. Key learnings

About City Cancer Challenge

Launched by UICC at the 2017 WEF Annual Meeting in Davos

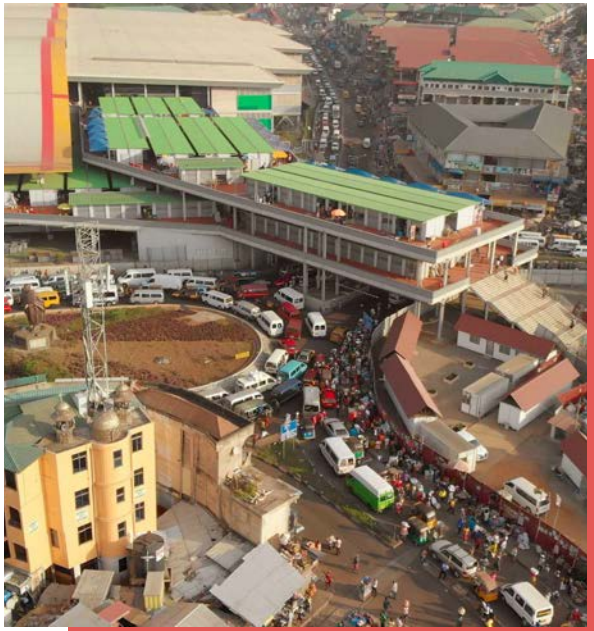
Established as a standalone Swiss foundation in January 2019

Our mission

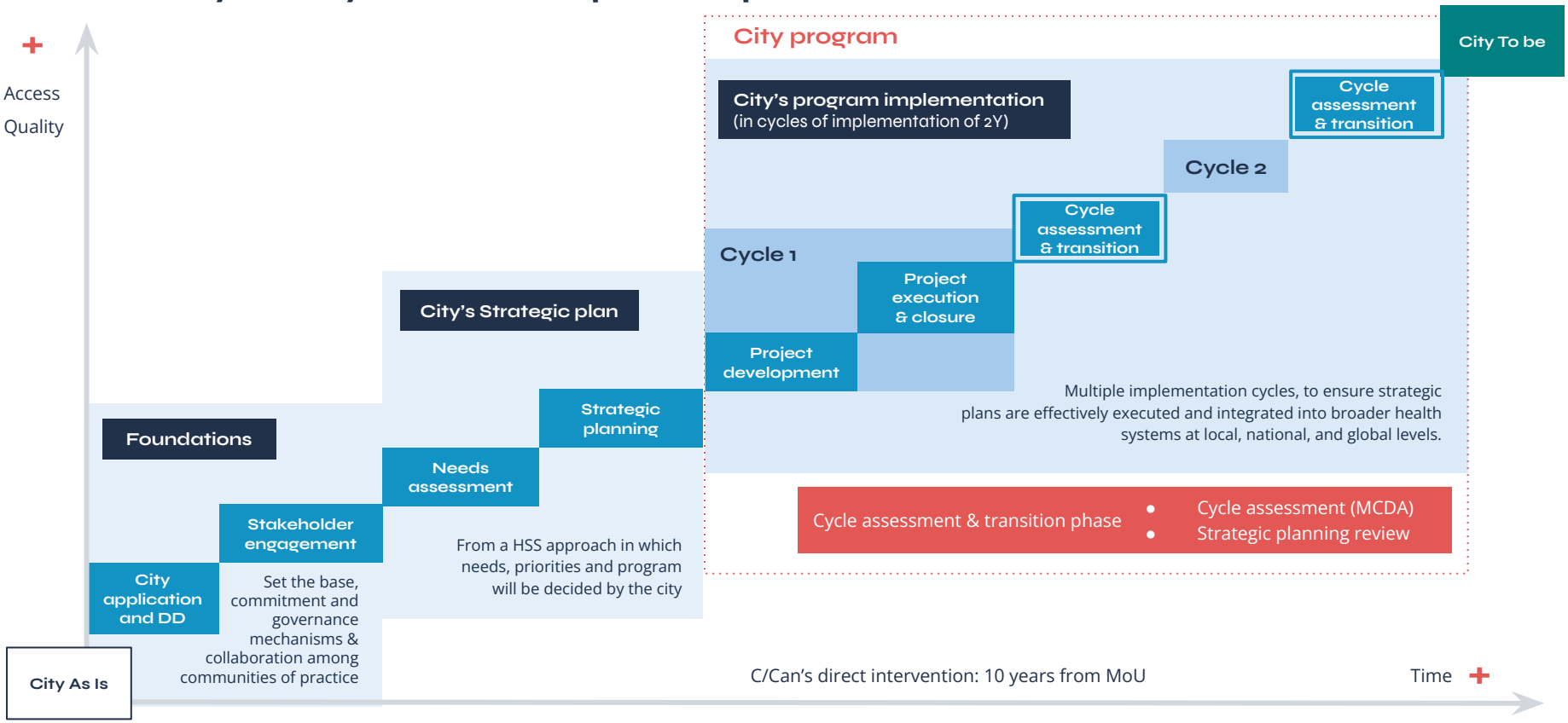
> We support cities around the world as they work to improve access to equitable, quality cancer care.

Driving local innovation for global impact

- C/Can adopts a **bottom-up approach**, listening to and supporting cities as they assess their own needs, connecting stakeholders across cities and sectors to build tailor-made, scalable cancer-care solutions based on local evidence that strengthens health systems as a whole.
- A **multisectoral network** of experts supporting cities in improving access to cancer care based on **quality data, capacity development and technical expertise.**
- A global community of cities to foster **knowledge exchange,** share lessons and innovative approaches and enable peer-learning across C/Can cities.



C/Can's approach: Step-by-step transformation framework for locally-led system strengthening



Silvina Frech et al. C/Can City Engagement Process: An Implementation Framework for Strengthening Cancer Care in Cities in Low- and Middle-Income Countries. JCO Glob Oncol 7, 901-916(2021). DOI:10.1200/GO.20.00606

C/Can in figures

1,179
Healthcare workers participating in capacity development initiatives

1,652
Patients participating in C/Can city process

6,390
Healthcare professionals supported

66M
Population benefited from improved health systemS

117
cancer care solutions developed, in support of SDGs achievement

6
areas of intervention

(i) financing,
(ii) health workforce,
(iii) information systems,
(iv) medical products and technologies,
(v) leadership/governance, and
(vi) service delivery

60+
partners

Including WHO, IFC, World Bank, IAEA, IARC, ASCO, ESTRO, Direct Relief, CHAI, ASCP, Mayo Clinic, ICO, ICCP, UHN, NCCJ, ICON, GiZ, SDC, Amgen, Siemens Healthineers, Roche, MSD, BMS, Sanofi, Pfizer, Astellas...

City insights.
From the ground up.

Milestones planned during the City Engagement Process

Due Diligence

01

Stakeholder Engagement

Increase political commitment & collaboration across diverse sectors
Establish resilient governance mechanisms and communities of practice.

- MoU with national and local authorities
- Multisectorial CECs
- Multidisciplinary and multi-institutional Working Groups

Needs Assessment

Data driven and informed decision-making

- Gaps in cancer care identified in city
- Situational analysis report

02

03

Strategic Planning /Project development

Multi stakeholder-endorsed strategic plan with defined priorities & streamlined city collaborations.

- Project plans developed with local experts

Project Execution

Project implementation & socialisation locally & nationally

- Locally-owned cancer solutions

Collaboration with global network of partners

04

City Assessment

**The following milestones are based on the experience of current C/Can cities.
The timeline, the format of the events and the number of participants may vary depending on local discussions and decisions with stakeholders**

Key stakeholder groups

City Executive Committee

Key decision makers/Drivers of the City Cancer Challenge Initiatives (leaders in cancer care from multiple sectors)

Technical Committee

Experts in cancer care lead the Needs Analysis, convene participants from other institutions and ensure that data collection is completed (Member per area of expertise)

Milestones planned during the City Engagement Process

Due Diligence

01

Stakeholder Engagement

Increase political commitment & collaboration across diverse sectors
Establish resilient governance mechanisms and communities of practice.

- MoU with national and local authorities
- Multisectorial CECs
- Multidisciplinary and multi-institutional Working Groups

Needs Assessment

Data driven and informed decision-making

- Gaps in cancer care identified in city
- Situational analysis report

02

03

Strategic Planning /Project development

Multi stakeholder-endorsed strategic plan with defined priorities & streamlined city collaborations.

- Project plans developed with local experts

Project Execution

Project implementation & socialisation locally & nationally

- Locally-owned cancer solutions

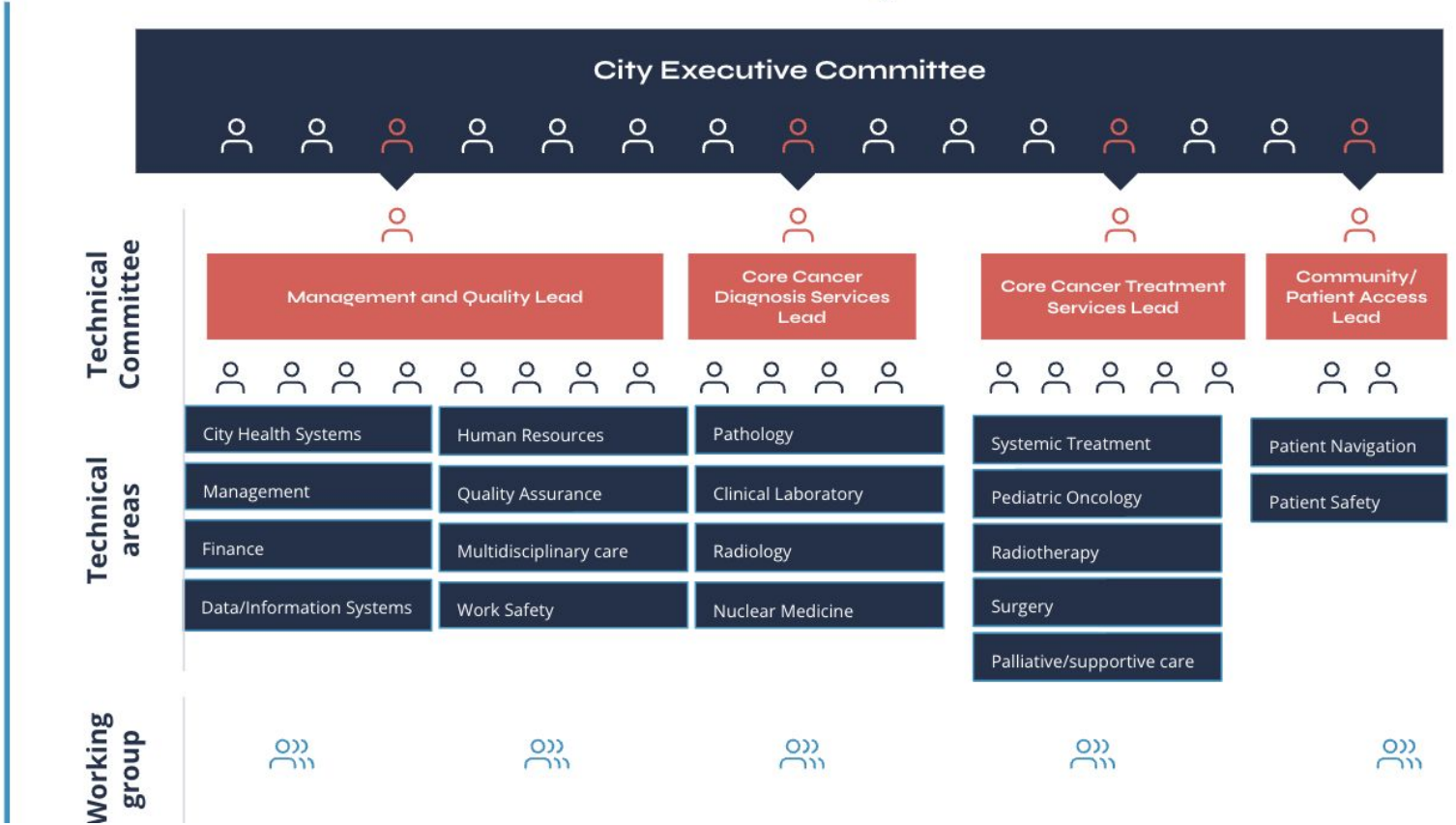
Collaboration with global network of partners

04

City Assessment

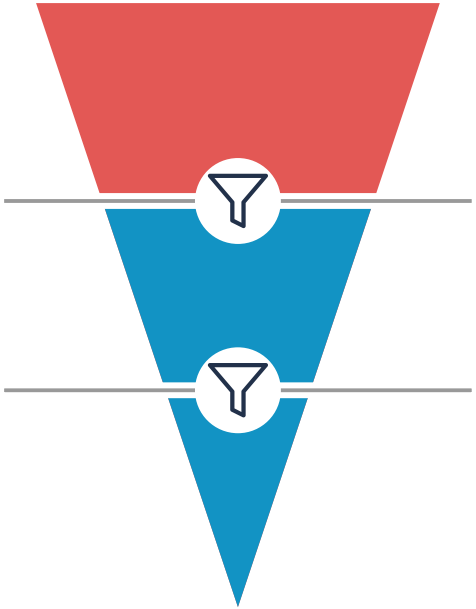
Needs Assessment Phase.

Multisectoral collaboration for data integration.



Methodology of needs assessment phase.

Needs assessment allows analysing the cancer care landscape in the city in order to contribute to shaping strategic planning and project development.



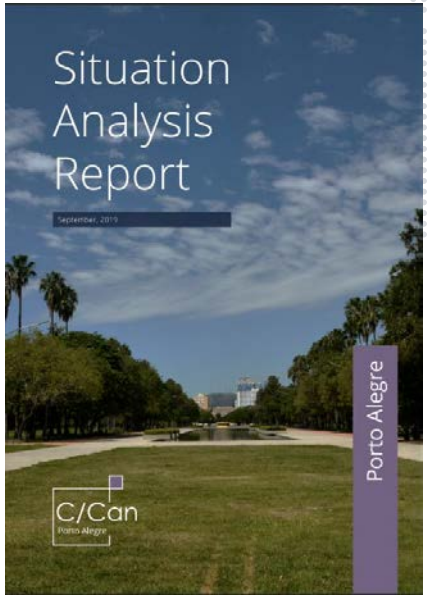
Situation Analysis Report

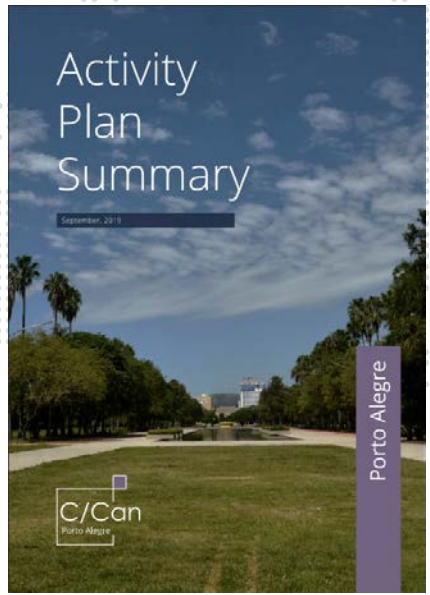
1. **Collected data across all cancer care institutions with key stakeholders analyzed by NAWGs**
   Data analysis meetings to identify the main gaps and solutions in cancer care

2. **Meeting of the City Technical Committee**
   Present the analysis across all cancer thematic areas

3. **Meeting of City Executive Committee**
   Presentation of the findings and approval of the findings

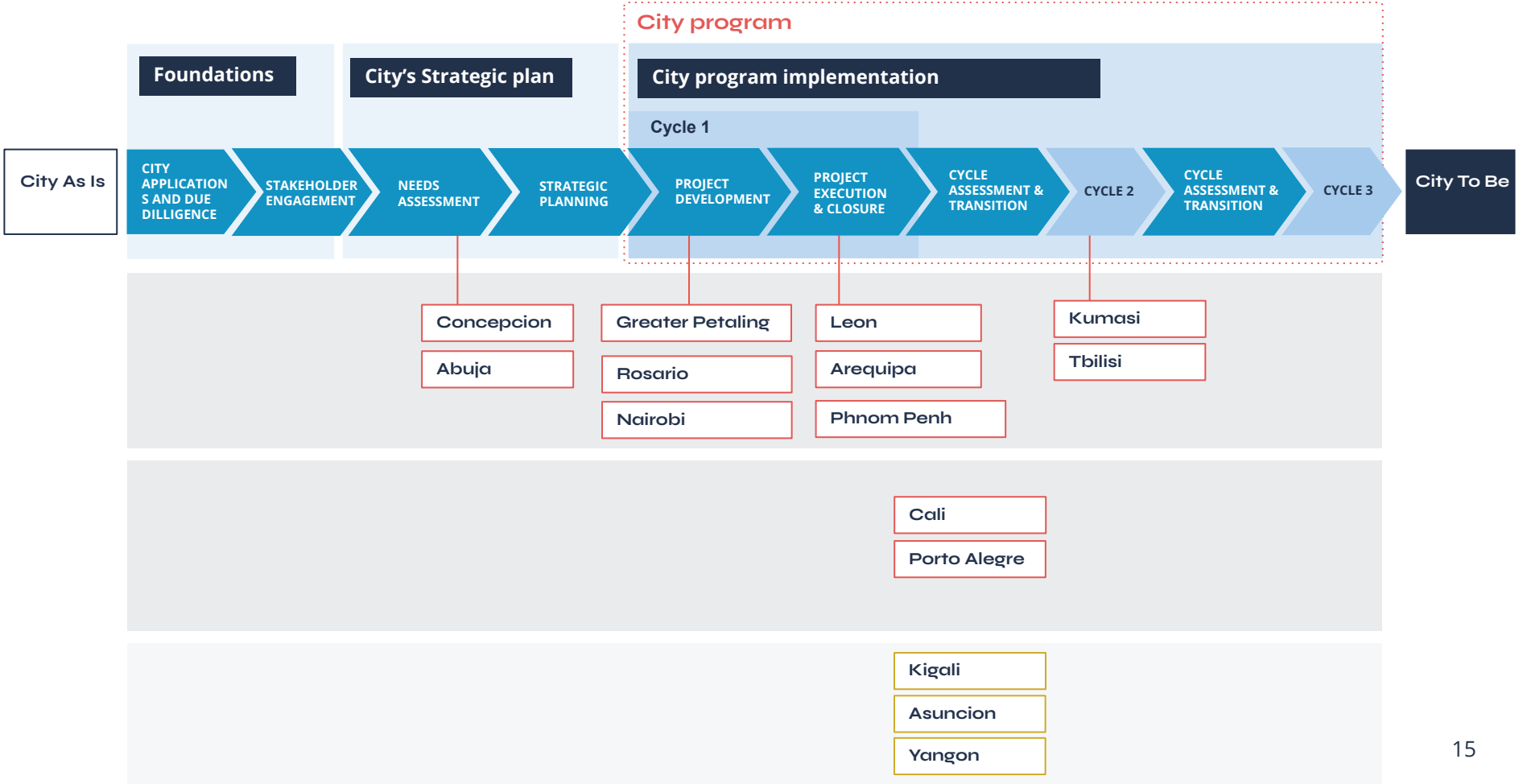
“Solution Planning: Roadmap for Cancer in the City.

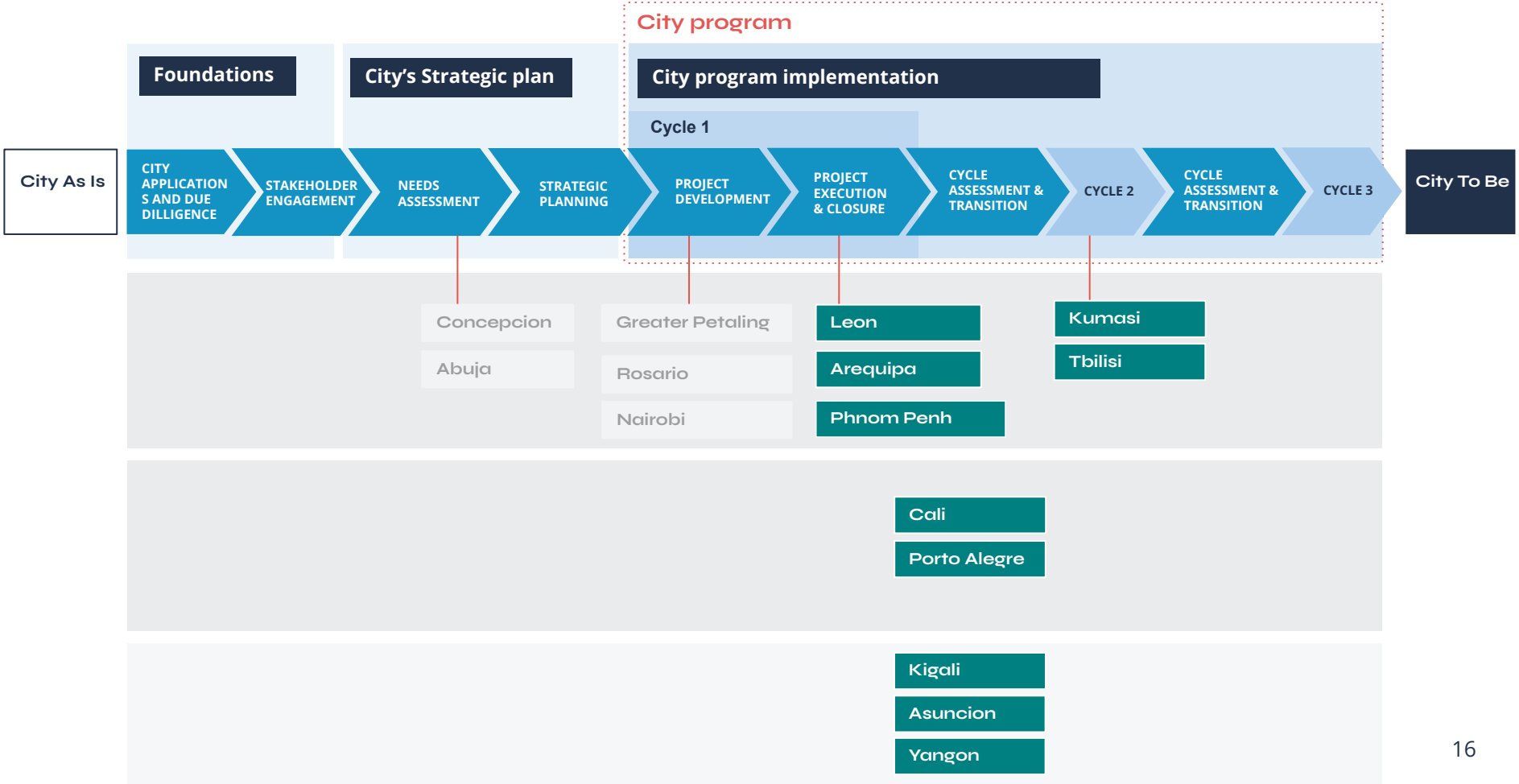




Action and Implementation Planning

The C/Can model - step by step approach




City program
Foundations
City's Strategic plan
City program implementation
Cycle 1
City As Is
CITY APPLICATIONS AND DUE DILLIGENCE
STAKEHOLDER ENGAGEMENT
NEEDS ASSESSMENT
STRATEGIC PLANNING
PROJECT DEVELOPMENT
PROJECT EXECUTION & CLOSURE
CYCLE ASSESSMENT & TRANSITION
CYCLE 2
CYCLE ASSESSMENT & TRANSITION
CYCLE 3
City To Be
Concepcion
Abuja
Greater Petaling
Rosario
Nairobi
Leon
Arequipa
Phnom Penh
Kumasi
Tbilisi
Cali
Porto Alegre
Kigali
Asuncion
Yangon

C/Can case study:
Data Driven solutions in Tbilisi, Georgia.

Tbilisi, Georgia

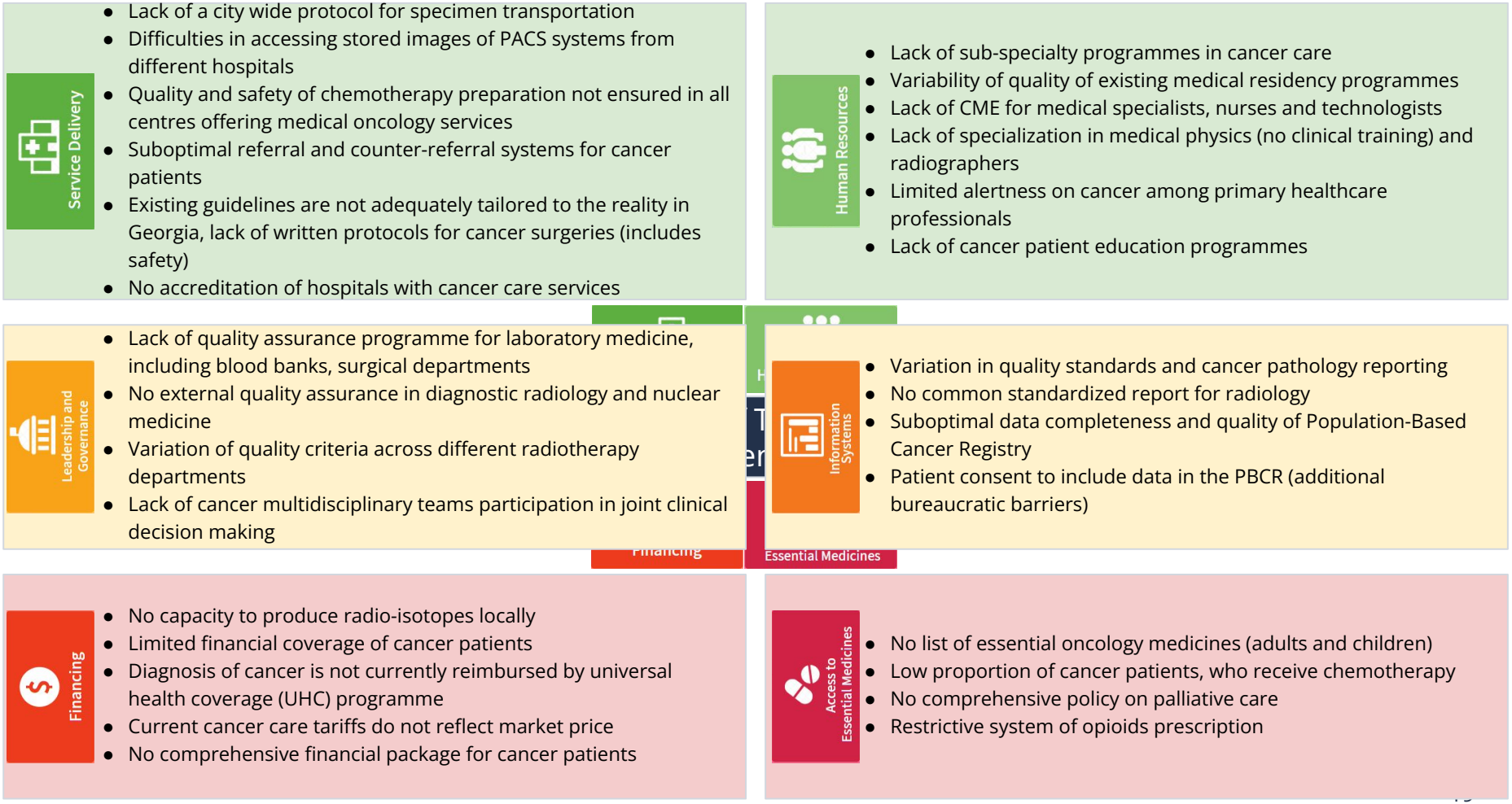
City program

Foundations | **City's Strategic plan** | **City program implementation** (in cycles of 2Y)

Cycle 1

City As Is → CITY APPLICATIONS AND DUE DILLIGENCE → STAKEHOLDER ENGAGEMENT → NEEDS ASSESSMENT → STRATEGIC PLANNING → PROJECT DEVELOPMENT → PROJECT EXECUTION & CLOSURE → CYCLE ASSESSMENT & TRANSITION → CYCLE 2 → CYCLE ASSESSMENT & TRANSITION → CYCLE 3 → City To Be

174 professionals from 27 institutions and more than 100 patients participated


Service Delivery
Lack of a city wide protocol for specimen transportation
Difficulties in accessing stored images of PACS systems from different hospitals
Quality and safety of chemotherapy preparation not ensured in all centres offering medical oncology services
Suboptimal referral and counter-referral systems for cancer patients
Existing guidelines are not adequately tailored to the reality in Georgia, lack of written protocols for cancer surgeries (includes safety)
No accreditation of hospitals with cancer care services
Human Resources
Lack of sub-specialty programmes in cancer care
Variability of quality of existing medical residency programmes
Lack of CME for medical specialists, nurses and technologists
Lack of specialization in medical physics (no clinical training) and radiographers
Limited alertness on cancer among primary healthcare professionals
Lack of cancer patient education programmes
Leadership and Governance
Lack of quality assurance programme for laboratory medicine, including blood banks, surgical departments
No external quality assurance in diagnostic radiology and nuclear medicine
Variation of quality criteria across different radiotherapy departments
Lack of cancer multidisciplinary teams participation in joint clinical decision making
Information Systems
Variation in quality standards and cancer pathology reporting
No common standardized report for radiology
Suboptimal data completeness and quality of Population-Based Cancer Registry
Patient consent to include data in the PBCR (additional bureaucratic barriers)
Financing
No capacity to produce radio-isotopes locally
Limited financial coverage of cancer patients
Diagnosis of cancer is not currently reimbursed by universal health coverage (UHC) programme
Current cancer care tariffs do not reflect market price
No comprehensive financial package for cancer patients
Access to Essential Medicines
No list of essential oncology medicines (adults and children)
Low proportion of cancer patients, who receive chemotherapy
No comprehensive policy on palliative care
Restrictive system of opioids prescription

Tbilisi, Georgia

City program

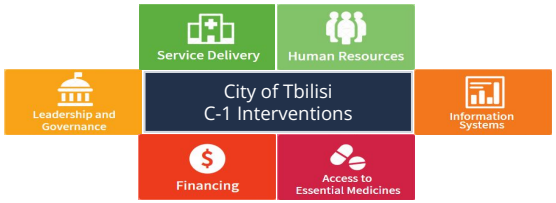
Foundations | **City's Strategic plan** | **City program implementation** (in cycles of 2Y)

Cycle 1

City As Is → CITY APPLICATIONS AND DUE DILLIGENCE → STAKEHOLDER ENGAGEMENT → NEEDS ASSESSMENT → STRATEGIC PLANNING → PROJECT DEVELOPMENT → PROJECT EXECUTION & CLOSURE → CYCLE ASSESSMENT & TRANSITION → CYCLE 2 → CYCLE ASSESSMENT & TRANSITION → CYCLE 3 → City To Be

174 professionals from 27 institutions and more than 100 patients participated

9 Cancer Care Projects with 40 interventions



- Adapted guideline on Ca Breast
- Adapted guideline on Ca Cervix
- Telepathology specifications
- Radiotherapy development plan
- PET/CT and Cyclotron Development Plan
- Global Breast Cancer Initiative Framework

- Capacity development for MDT
- Syllabus for common training of radiation technologists and medical physicists
- Policy recommendation to strengthen cancer care education at under-graduate level
- Reviewed post graduate-level training programme for medical oncology, radiation oncology, surgery
- Resolution to ensure the existence of CME in all centres licensed to treat cancer patients
- Cancer care training modules for primary healthcare professionals and oncology nurses

- MDT Regulation
- Norm on quality criteria, Quality control manual and Quality protocol for pathology laboratory
- Quality assurance guidelines for radiology and nuclear medicine
- Radiotherapy quality assurance programme
- Recommended regulations to ensure provision of high quality systemic oncology treatment and cancer surgery services to be considered by the MoH
- GBCI and breast cancer action plan

- Standardized radiology report
- Policy guidance for harmonization of data quality
- Advocacy document for patient informed consent
- Assessment of quality of cancer registration processes, identifying gaps and producing the appropriate recommendations
- Data assessment on cancer related vital statistics
- Updating of the cancer registration process and dissemination

- List of diagnostic test packages for all prevalent cancers to be reimbursed
- Collect real-world diagnostic test packages pricing across the 7 centres of Georgia
- Budget impact forecast scenario for the inclusion of diagnostic reimbursement
- Workshop with MoH to present the report of the budget impact analysis, co-develop the recommendations for reimbursement of diagnostic procedures for cancer and for the criteria for inclusion

- Assessment of IT software and hardware infrastructure, cancer data points and variables for facilities contributing to the cancer registry

Tbilisi, Georgia

City program

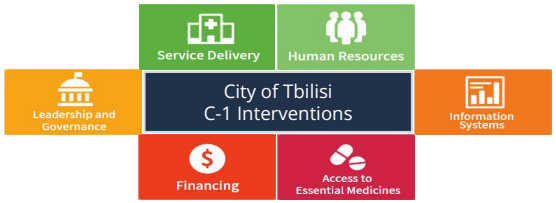
Foundations | **City's Strategic plan** | **City program implementation** (in cycles of 2Y)

Cycle 1

City As Is → CITY APPLICATIONS AND DUE DILLIGENCE → STAKEHOLDER ENGAGEMENT → NEEDS ASSESSMENT → STRATEGIC PLANNING → PROJECT DEVELOPMENT → PROJECT EXECUTION & CLOSURE → CYCLE ASSESSMENT & TRANSITION → CYCLE 2 → CYCLE ASSESSMENT & TRANSITION → CYCLE 3 → City To Be

174 professionals from 27 institutions and more than 100 patients participated

9 Cancer Care Projects with 40 interventions



Cycle 2 Programme Concept Development

- Improvement of early cancer diagnostics,
- ensuring quality and timely cancer diagnosis,
- enhancement of cancer care quality.

Tbilisi: Cycle 2 Programme Concept Development

EARLY CANCER DIAGNOSIS

Public awareness and primary care training to improve breast cancer diagnostics

- Implementation of the e-learning course for primary healthcare clinicians and nurses to improve early recognition of breast cancer signs and symptoms to facilitate “recognize and referral” processes
- Definition and implementation of cancer care awareness training on early warning signs and symptoms for patient organisations
- Conduction of the research to understand barriers and facilitators that women as both patients and providers experience in interacting with cancer.

TIMELY AND QUALITY CANCER DIAGNOSIS

Ensuring timely delivery of quality breast cancer diagnostic services

- Streamline the breast cancer diagnostic pathway by defining coordination and referral mechanisms to ensure timely and efficient diagnostic processes.
- Standardized clinical breast assessment (CBA) for consistent and high-quality diagnosis.
- Strengthened Quality Assurance and Standardization in Breast Cancer Diagnosis.

QUALITY CANCER MANAGEMENT

Enhance the quality of cancer treatment, rehabilitation and supportive care

- Implementation of the recommendations for postgraduate-level clinical oncology programs to strengthen the cancer care workforce capacity.
- Establish a National Framework for multidisciplinary cancer care.
- Enhanced adherence to national breast cancer management guidelines through standardized dissemination and monitoring systems.
- Improved quality and safety of anti-cancer therapy administration through targeted capacity development interventions for pharmacists and nurses
- Enhancing Decision-Making on the Value of Anti-Cancer Therapies.

C/Can case study:
Data Driven solutions in Phnom Penh, Cambodia.

Phnom Penh, Cambodia

City program

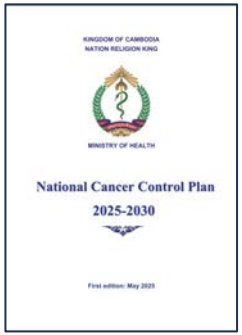
Foundations | **City's Strategic plan** | **City program implementation** (in cycles of 2Y)

Cycle 1

City As Is → CITY APPLICATIONS AND DUE DILLIGENCE → STAKEHOLDER ENGAGEMENT → NEEDS ASSESSMENT → STRATEGIC PLANNING → PROJECT DEVELOPMENT → PROJECT EXECUTION & CLOSURE → CYCLE ASSESSMENT & TRANSITION → CYCLE 2 → CYCLE ASSESSMENT & TRANSITION → CYCLE 3 → City To Be

66 professionals from 14 institutions and about 200 patients participated

12 Cancer Care Projects with 27 interventions



Phnom Penh City

Goal: Contributed to improving the accessibility and quality of cancer care in Phnom Penh

C/Can

	Project 1: Clinical Laboratory and Pathology	Project 2: Radiology and Nuclear Medicine	Project 3: Systemic Treatment	Project 4: Paediatric Oncology	Project 5: Radiotherapy	Project 6: Cancer Surgery	Project 7: Palliative Care	Project 8: MDT, Quality and Safety	Project 9: Health System Coor & Mgt	Project 10: HIS and Database	Project 11: Health Financing and Affordability	Project 12: Patient Access
Objective	To improve access to quality laboratory and pathology cancer diagnostics services	To strengthen the quality of radiology and nuclear medicine service	To improve the access to quality systemic cancer treatment services and build capacity of cancer care providers to deliver quality systemic therapy	To strengthen the referral linkages across levels of health services an ensure the continuity of care for childhood cancer.	To improve access to radiotherapy services in the city of Phnom Penh.	To strengthen the capacity and quality of surgical care for cancer patients in the city Phnom Penh.	To strengthen the palliative care services in both hospital and community settings in Phnom Penh.	To strengthen the practice of the MDT approach in providing cancer treatment	To strengthen the strategic planning for cancer care services and to strengthen the referral linkages	To develop hospital-base d cancer registries as a basis for planning a population-ba sed cancer registry	To generate evidence on out-of-pocket OOP (OOP) expenditures for (cervical/ breast) cancer patients	To improve awareness and knowledge of patients on how to manage their condition.
Outputs	**Output 1:** Pathology and clinical laboratory development plan **Out put 2:** Develop a minimal quality standards and a quality assurance programme for pathology and clinical laboratory. **Out put 3:** CPE programmes for Pathologist, Hematologist, Microbiologists and lab technicians).	**Output 1:** QA/QC standards for radiology. **Output 2:** QA/QC standards for nuclear medicine **Output 3:** Structural/ synoptic diagnostic imaging reporting format for prioritized tumors harmonized across public and private providers.	**Output 1:** Development plan for systemic treatment. **Out put 2:** Recommendations to update the NEML to ensure greater access to essential oncology medicines. **Out put 3:** Train hospital pharmacists and nurses on safe handling of oncology medicines in clinical settings.	**Output 1:** Mapping and situation analysis on current paediatric patients' pathways. **Output 2:** Design the referral mechanism and tools across different levels of care and capacity development.	**Output 1.** Radiotherapy development plan to meet clinical demand. **Output 2.** Review and revise the current medical technologist syllabus for the education and training of RTTs. **Outp ut 3.** Short-term fellowship training for Radiation Oncologists, Medical Physicists, and RTTs.	**Output 1.** Preceptorship programme for colorectal cancer **Output 2.** Preceptorship programme for paediatric cancers.	**Output 1.** Palliative care development plan with short-, medium- and long-term goals.	**Output 1.** Operational guidelines for implementation and monitoring of MDT case discussion. **Output 2.** Capacity development for multidisciplinary cancer care professionals for MDT case discussion.	**Output 1.** Technical cooperation support in the development of NCCP 2025-2030. **Output 2.** Review and develop a minimal set of information for referral of patients. **Output 3.** Review and implement an e-learning course on oncology in primary health care. **Output 4.** Workshop on "How to implement the GBCI in practice" resulting in action plan for implementation of GBCI Framework in Phnom Penh.	**Output 1.** Capacity development of MOH Cancer Registry team **Ou tput 2.** Development plan for Hospital-based cancer registry - standardize the data set, IT software, training.	**Output 1.** Assess and quantify out-of-pocket (OOP) expenditure on cancer care (medical and non-medical).	**Output 1.** Develop recommendations for the development of patient education materials focused on prioritized tumour types.
Teams	Dr. Nheb Mary Calmette Hospital 11 members	Dr. Varoeun Soley, Calmette Hospital 14 members	Dr. Mlis Ratha Calmette Hospital 18 members	Dr. Phauk Chinith NPH 10 members	Dr. Mel Mora Calmette Hospital 8 members	Dr. Dara Vithiea Calmette Hospital 7 members	Dr. Meng Lang Calmette Hospital 17 members	Dr. Thou Sarameth Calmette Hospital 17 members	Dr. Heng Viroath KSFH 12 members	Dr. Thol Dawin PDM, MOH 18 members	To Sophorn, DBF, MOH 5 members	Mr. Tim Vora HACC 8 members

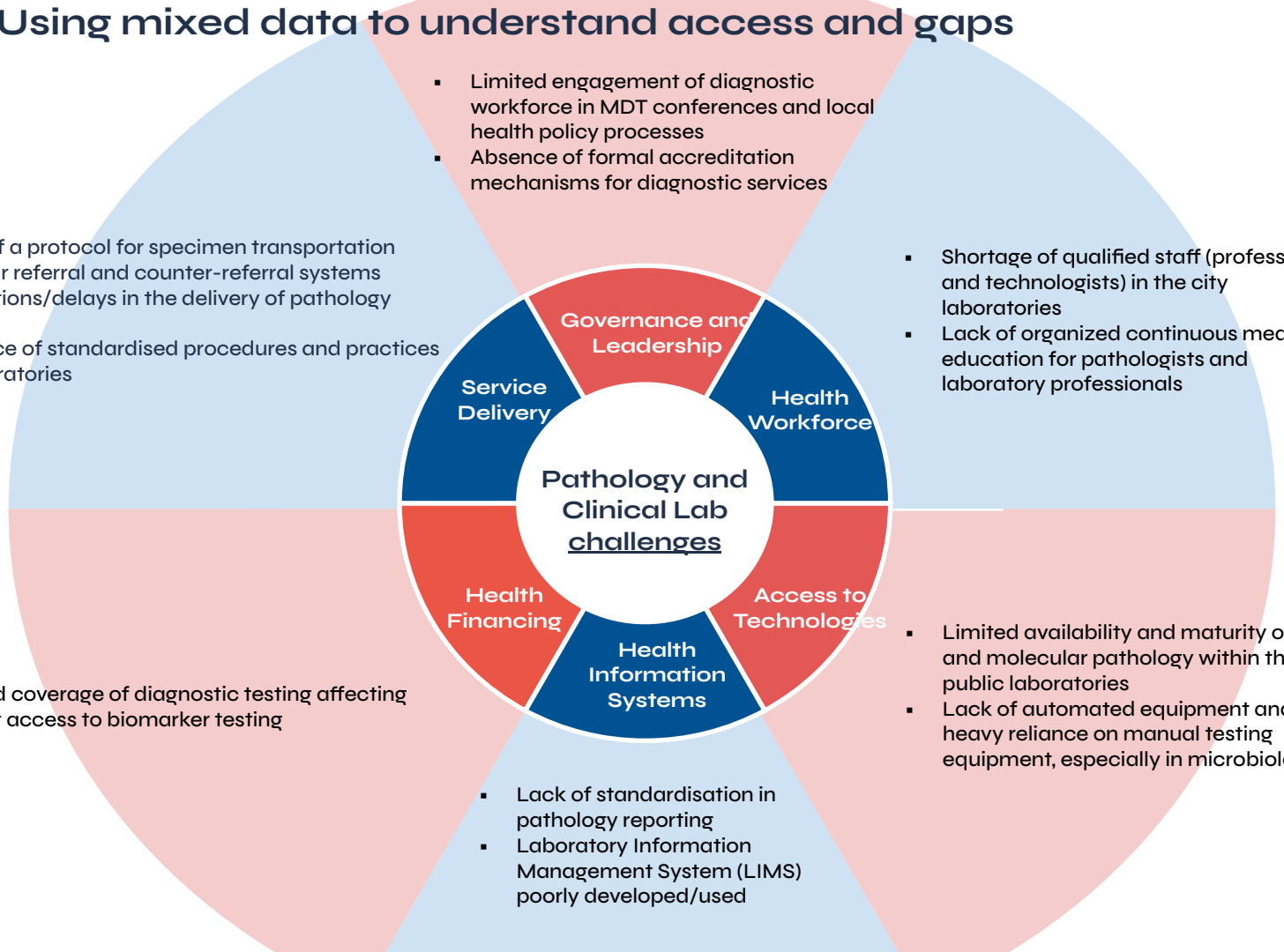
Project execution plan and timeline, coordination, capacity building, monitoring and evaluation, implementation research, and learning

Contributors and implementers: PMD (MOH), DHS (MOH), UHS, Calmette Hospital, NPH, KSFH, Loung Me Hospital, Kantha Bopha Hospital, Orange Cancer Clinic, Douleurs Sans Frontières, Japan Heart, Chakra Clinic, Vital Strategies, HACC, JICA, MMC, CHAI, C/Can

Leadership: City Cancer Coordination Group (CCCG), Ministry of Health Cambodia

C/Can case study:
Data Driven solutions for Pathology and Clinical Laboratory.

Using mixed data to understand access and gaps



- Limited engagement of diagnostic workforce in MDT conferences and local health policy processes
- Absence of formal accreditation mechanisms for diagnostic services

- Lack of a protocol for specimen transportation
- Unclear referral and counter-referral systems
- Disruptions/delays in the delivery of pathology service
- Absence of standardised procedures and practices in laboratories

- Shortage of qualified staff (professionals and technologists) in the city laboratories
- Lack of organized continuous medical education for pathologists and laboratory professionals

- Limited coverage of diagnostic testing affecting patient access to biomarker testing

- Limited availability and maturity of IHC and molecular pathology within the public laboratories
- Lack of automated equipment and heavy reliance on manual testing equipment, especially in microbiology

- Lack of standardisation in pathology reporting
- Laboratory Information Management System (LIMS) poorly developed/used

C/Can

Using mixed data to design solutions

- Quality manual / Guidelines for regulating pathology laboratory practices
- National regulations on MDT practice

- SOPs and QC manuals
- Protocol for specimen transportation in the city
- Development of a logistical system for specimen transportation in a defined local network of providers
- Resource-stratified guidelines for clinical management of prioritised cancers

- Policy recommendations for sub-specialty training
- Training on operationalization of MDT conferences
- Quality management training
- Provide hands-on training on some processes and special procedures (special stains, IHC, etc).

- Budget impact analysis to support the decision-making for inclusion of cancer diagnostics in UHC basic package (including an extended panel of biomarkers; e.g. PDL-1)

- Situation analysis of laboratory capacity
- Strategic plan for upgrading the most relevant laboratories in public sector
- Procurement of essential laboratory equipment

- Standardised reporting format
- Technological platform that allows the integration of services and subsystems in city (lab network)

C/Can

Scaling up quality management systems in pathology

Standard development

Resource to support the development of the operational requirements towards quality improvement in public and private laboratories in C/Can cities

Policy and advocacy

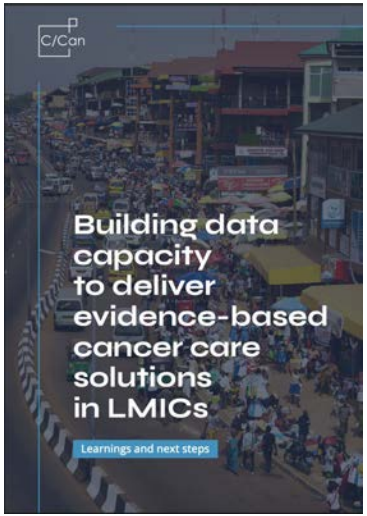
Core elements to be considered in regulatory frameworks to promote and enforce good practice in pathology laboratories in C/Can cities.

☞ Link to the resources on C/Can website

Key lessons learnt.

C/Can's data strategy: quality and continuity, the key to driving decision-making for cancer care in cities.

Link



Link

- Engaging the right stakeholders improves data quality
- Tailoring data collection to the local context ensures efficiency of the process.
- Asking the right questions helps target data collection
- Creating a safe data environment is essential.
- Mapping and knowing stakeholders is key to data quality.
- Partners and city stakeholders share input on C/Can's next phase of work.
- Connecting learnings from different cities is essential.

Key lessons and recommendations.

- Multisectoral collaboration and engagement including the Ministry of Health.
- Locally led planning and execution of interventions with the engagement of technical expertise from international partners.
- Data-driven decision making to ensure proposed interventions are evidence-based, contextually relevant, and sustainable within the local health system.
- Alignment with National Cancer Control Plan.
- Technical Cooperation and Capacity Development.
- Learning, sharing and knowledge generation.

Thank you.