

International Atomic Energy Agency Scientific Forum

A Decade of Action on **Cancer Control** and the Way Forward



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Roadmap towards a National Cancer Control Programme

**Milestones for establishing nuclear
medicine, diagnostic imaging and
radiotherapy services**

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Elements of the Cancer Control Continuum

Comprehensive cancer prevention and control requires inclusion of all elements across the cancer continuum:

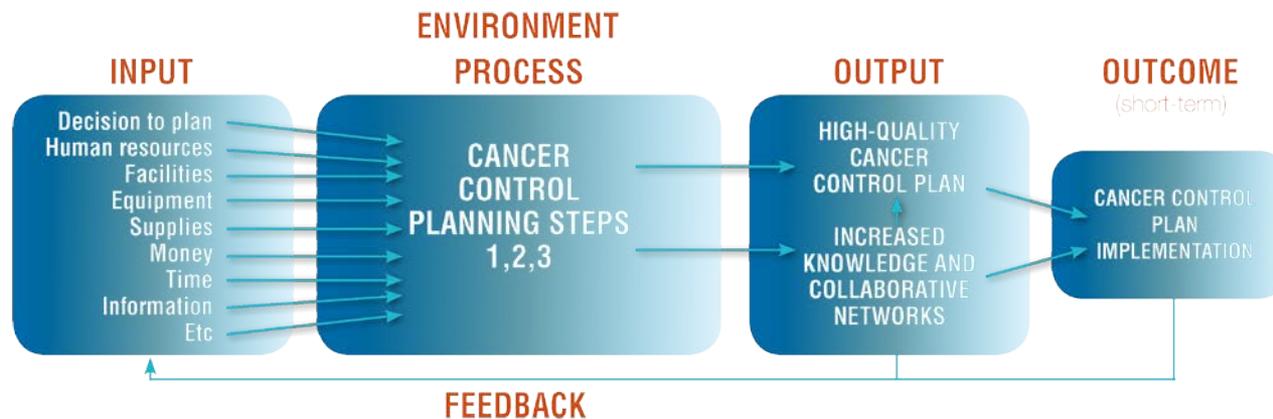


National cancer policies and programmes, when well-conceived and well-managed, help reduce the cancer burden and improve services for cancer patients and their families.



Prior to investing in cancer control programmes, decision-makers must consider:

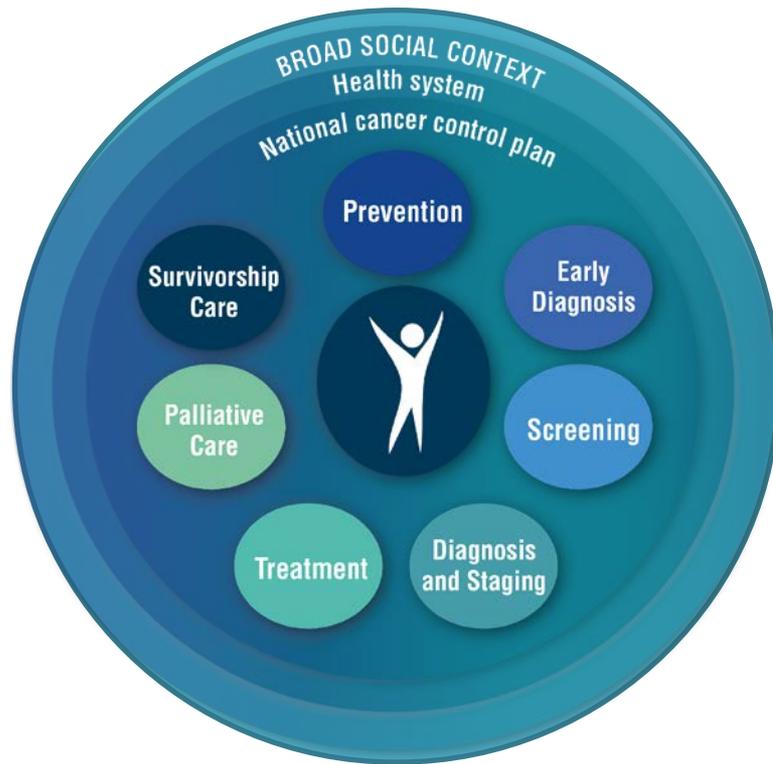
- National cancer priorities;
- A country's health system capacity to deliver a sustainable programme.



Comprehensive cancer prevention and control requires inclusion of all elements across the cancer continuum.



What is a Cancer Control Programme?



Cancer Continuum

A public health programme to:

- Reduce the number of cancer cases and deaths;
- Improve the quality of life of cancer patients.

What is needed?

Inclusion of all elements across the cancer continuum:

- Framed by the health system;
- Supported by effective financing strategies;
- Monitoring systems;
- Quality management.



Roadmap towards a National Cancer Control Programme



The document provides:

- Context for implementing services related to diagnostic imaging, nuclear medicine and radiotherapy within a national cancer control programme;
- Information on how the IAEA and WHO can support countries to set up strategies for radiotherapy & nuclear medicine services in their countries;
- Information on how the IAEA and WHO can support governments achieve milestones in cancer control.



General Cancer Control Phases and Milestones

PHASE I

PRE-PLANNING

Prepare the planning process

- Identify cancer control as one of the health priorities in the country
- Establish a nodal officer and a technical working group with national and international experts

MILESTONE 1 Decision to start a NCCP

PHASE II

PLANNING

Formulate a balanced and realistic plan based on feasibility and capacity. Specify the expected deliverables with attention to pre-requisites. Learn and observe progress in similar countries.

- Planning step 1 (Where are we now?). Investigate the present state of the cancer problem, and cancer control services or programmes.
- Planning step 2 (Where do we want to be?). Formulate and adopt policy. This includes defining the target population, setting goals and objectives, and deciding on priority interventions.
- Planning step 3 (How do we get there?). Identify the steps needed to implement the policy.

MILESTONE 2 NCCP created and costed

- Investigate current state of cancer issue & services.

- Formulate policy:
 - Define target population;
 - Goals & Objectives;
 - Decide on priority interventions.

- Identify steps needed to implement policy.



General Cancer Control Phases and Milestones

PHASE III

PREPARATORY WORK FOR IMPLEMENTATION

Preparatory work for the implementation of the NCCP legal and regulatory framework, infrastructure and human resource planning.

- Create a steering committee
- Cost and economic analyses
- Risk assessment
- Develop a strategy for implementation
- Specific project sub-plans
- Legal and regulatory nuclear safety and security infrastructure
- Human Resources development
- Logical Framework Matrix (LFM)

MILESTONE 3 Preparatory work done

PHASE IV

IMPLEMENTATION

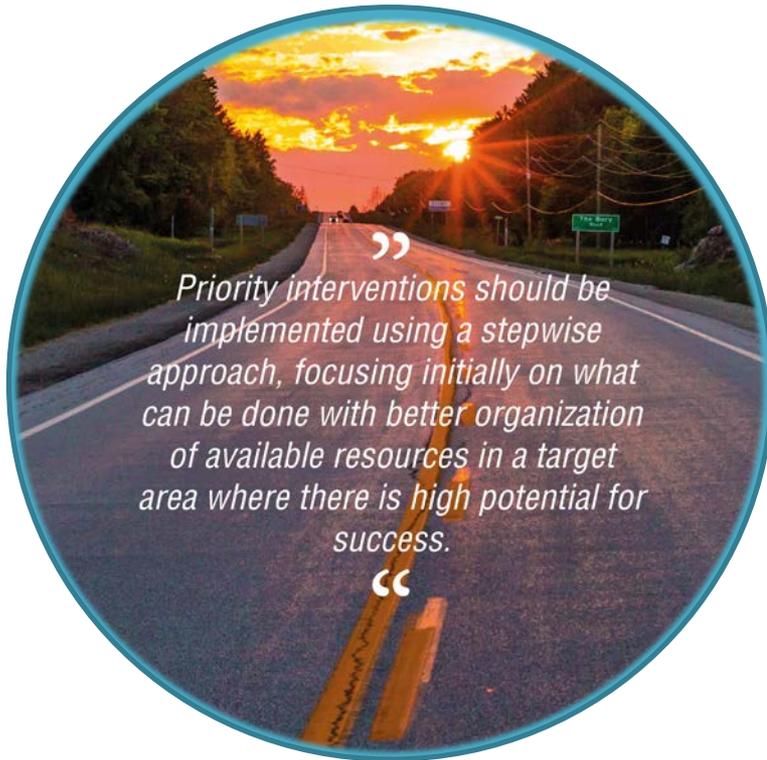
Phased implementation. Work on all the components of the NCCP including diagnostic capacity such as pathology, diagnostic imaging and nuclear medicine and radiation physics.

- Implementation step 1 (core interventions). Implement interventions in the policy that are feasible now, with existing resources.
- Implementation step 2 (expanded interventions). Implement interventions in the policy that are feasible in the medium term, with realistically projected increase in, or reallocation of, resources.
- Implementation step 3 (desirable interventions). Implement interventions in the policy that are beyond the reach of current resources, if and when such resources become available.

- Implement with existing resources.
- Implement what is feasible in the medium term with reallocation of increased resources.
- Implement interventions beyond current resources when resources become available.



Implementation within a National Cancer Control Programme



Implementation must focus on:

Prioritizing a limited number of high impact, cost-effective and sustainable interventions in line with:

- 1) National capacity;
- 2) Epidemiologic burden;
- 3) Measurable processes;
- 4) Outcomes that can be monitored & evaluated.

A monitoring and evaluation framework should be put in place which includes outcomes assessment and analysis as well as service quality assessments.



Diagnostic imaging, nuclear medicine and radiotherapy



Diagnostic imaging and nuclear medicine are key to the diagnosis, staging and management of cancer.

Radiotherapy is a critical pillar of curing or palliating cancer.

Safe and secure delivery of services for diagnosis and treatment requires:

- 1) Appropriate legal and regulatory frameworks;
- 2) Related national regulatory infrastructures.

The IAEA develops tailored strategies to support Member States optimize their resources in diagnostic imaging, nuclear medicine and radiotherapy without compromising the quality of the services provided.



Diagnostic Imaging and Nuclear Medicine



Medical images allow for:

- Early and accurate diagnosis;
- Screening of population when appropriate;
- Assessment of the location and staging of the disease;
- Follow-up of the patient to detect relapses;
- Prognostic evaluation;
- Appropriate therapeutic decisions;
- Follow-up of treatment.

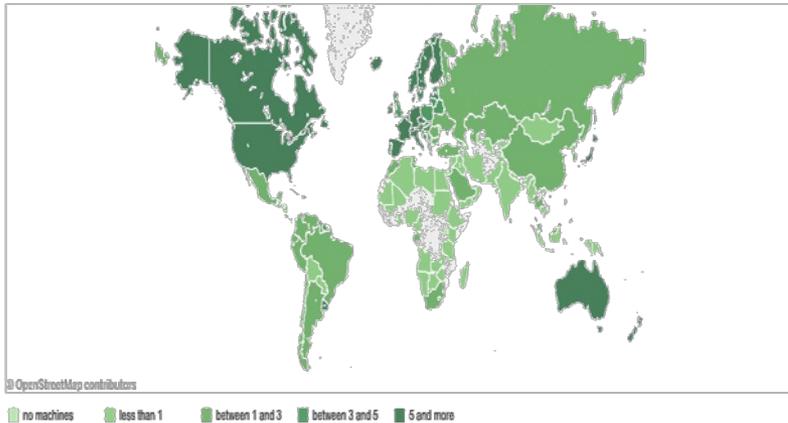
Incorporating medical imaging facilities requires careful planning to establish different imaging modalities ranging from standard to complex.



Radiotherapy; an important treatment intervention as part of multi-modality cancer therapy

Considerations for radiotherapy

Number of Radiotherapy Machines Per Million People
(Updated on : 9/2/2016 2:28:54 AM)



- Defining national cancer priorities;
 - Frequency of cancer;
 - Most common tumours;
 - Appropriateness of radiotherapy or other interventions.
- Preparedness of a country's health system to deliver a sustainable radiotherapy programme.

Radiotherapy can be used with curative or palliative intent, saving lives and improving quality of life.



Radiotherapy Phases and Milestones

PHASE I

RADIO THERAPY

- Prepare the planning process
 - Identify radiotherapy as an essential component of the NCCP
 - Establish a focal point for radiotherapy

MILESTONE 1 Decision to start RT

PHASE II

- Formulate a National Radiotherapy Sub-plan in the NCCP. Specify the pre-requisites in terms of land use, infrastructure, human resources and legal and regulatory framework. Learn and observe progress in similar countries.
- Stepwise planning in three steps (*where are we now?; where do we want to be?; how do we get there?*).

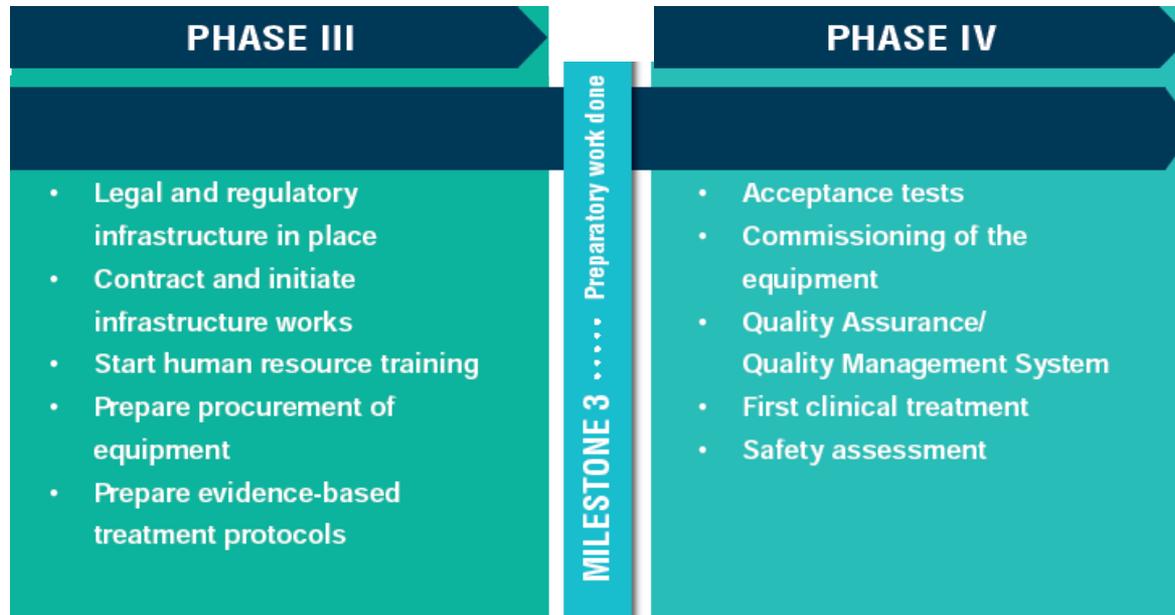
MILESTONE 2 National RT plan

- Specify pre-requisites:
 - Land use;
 - Human resources;
 - Legal framework;
 - Regulatory framework.

- Step-wise planning



Radiotherapy Phases and Milestones



IAEA and WHO can assist in phases I-IV:



- Providing guidance to Member States to set national priorities for cancer control;
- Developing, adopting and strengthening nuclear medicine, diagnostic imaging and radiotherapy services;
- Provide technical advice;
- Training;
- Coordinated Research Projects;
- Procurement of equipment;
- Technical publications;
- Public Information and Advocacy;
- Resource mobilization to develop a National Cancer Control Plan.



THANK YOU

