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# A Cancer Strategy for Northern Ireland 2022-2032 Funding Plan

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Department of  
**Health**

An Roinn Sláinte

Máinnystrie O Poustie

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## Introduction

Addressing the challenges currently facing cancer services in Northern Ireland, and implementing the strategic improvements greatly needed and so long sought for, is dependent on the availability of significantly increased and sustained funding. Unfortunately, cancer services in Northern Ireland have historically been underfunded in comparison with other UK jurisdictions.

As part of the work to develop the Cancer Strategy 2022–2032, the Department worked with the Board and cancer leads in the Trusts to provide costs for the actions in the cancer recovery plan and the foundation for the estimated costs to deliver the Strategy over the next 10 years and to understand the extent and range of resources required.

This Funding Plan therefore outlines the estimated indicative cost of developing, establishing and maintaining the services and interventions set out in the Cancer Recovery Plan and Cancer Strategy. The estimated costs are drawn from a wide range of evidence, including the outcomes of reviews including the Oncology and Haematology Stabilisation Review; the existing costs to deliver services in Northern Ireland; expertise within the HSC Board and HSC Trusts; existing knowledge and experience in the Department. In the plan, high-level reasoning for the costs is outlined together with indicative outcomes for each action or group of actions.

This plan highlights that a significant investment is required in cancer services in order to implement the Cancer Strategy 2022–2032. The recurrent revenue cost when all actions are implemented is estimated at £145m per year.

The plan also identifies a capital investment requirement of £73m. Some of this funding is linked to consumables in diagnostics and would be required over some years. Some of the capital costs may therefore be recurrent.

<b>Capital over 10 years</b>	<b>£73m</b>
<b>Revenue per year if fully funded</b>	<b>£145m</b>
<b>Revenue over 10 years</b>	<b>£778m</b>

A number of actions are identified as enablers and project costs to allow further actions to progress. These are identified as costs in year 1 – 2022/23.

One action, action 21, is the implementation of other, already approved, work. The costs are therefore phased from year 1, but the scope and the scale of the cost can be adjusted.

It will not be possible to start implementation of all the actions simultaneously, although there are some actions that can be progressed concurrently. An indicative spending profile – attached at Annex A – represents a realistic phased approach to implementing the actions over a 10-year period. The investment need across each theme is estimated as below.

Theme	Y1 £m	Y2 £m	Y3 £m	Y4 £m	Y5 £m	Y6 £m	Y7 £m	Y8 £m	Y9 £m	Y10 £m	Total £m
Preventing Cancer	There are no direct costs as these costs are carried across other strategies.										0.0
Diagnosing and Treating Cancer	1.6	11.0	21.1	30.1	35.5	42.4	47.4	48.4	48.4	48.4	334.3
Supporting People to Live Well and Die Well	0.1	2.5	6.2	10.3	14.5	15.5	17.0	19.1	19.0	19.0	123.2
Implementing the Strategy	0.6	2.6	7.0	15.3	22.3	27.3	37.3	57.3	72.4	78.4	320.5
<b>Total</b>	<b>2.3</b>	<b>16.1</b>	<b>34.3</b>	<b>55.7</b>	<b>72.3</b>	<b>85.2</b>	<b>101.7</b>	<b>124.8</b>	<b>139.8</b>	<b>145.8</b>	<b>778.0</b>

As we move forward, it is also important to acknowledge the difficult financial context in which this strategy is being issued. At the time of publication, all actions are subject to confirmation of funding and will therefore require prioritisation, workforce mapping and planning to ensure realistic delivery. The investment required to deliver the Strategy is significant, and is in addition to the existing expenditure in cancer services. It is not possible to fund implementation from within the Department's existing resources and delivery is therefore dependent on the provisions of significant additional funding for the Department. Where it is possible, the Department will also seek to release resources through service efficiencies and reconfigurations; however, this in itself will not be sufficient to fund implementation. The pace of change outlined in this Strategy will also be considered in the context of other service priorities and with regard to the Department's overall financial settlements.

## Theme 1 – Preventing Cancer

### Actions 1–4

Theme	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Preventing Cancer	There are no direct costs as these costs are carried across other strategies.										0.0

It is clear that reducing the number of preventable cancers in Northern Ireland is vital to allow us to effectively deliver cancer services. This will require a concerted focus across government as policy responsibility for a range of areas lies within other government Departments.

The proportion of cancer incidence in adults in Northern Ireland attributable to modifiable lifestyle and environmental factors is estimated to be in the 30% to 40% range. A population approach, supported by policy and legislative measures, is therefore required to encourage and support people to live healthier lives and reduce the prevalence of cancer risk factors such as tobacco and alcohol consumption, obesity, lack of physical activity and UV radiation exposure.

People who have developed cancer may worry about the cancer returning, and could be at an increased risk of recurrence without behavioural changes. Multiple studies have demonstrated strong evidence for the benefits of physical activity in reducing the risks of both cancer recurrence and death from cancer for a variety of tumour types.

Death rates for cancer are falling; however, the total number of cancer deaths continue to rise due to an increase in the numbers of older people in the age range when the cancer typically occurs. This brings considerable challenges to health services in meeting the demand for care as well as the impact on the individuals affected.

Treatment services alone cannot address the burden of cancer care. Prevention must be a key focus of this Strategy as it offers the most long-term, cost-effective approach; however, it will take time before the impact can be realised.

Raising public awareness of the signs and symptoms of cancer has been proven to be successful elsewhere in the UK. England and Scotland run regular campaigns designed to raise awareness of the signs and symptoms of different types of cancer and to encourage patients to visit their GP if they experience symptoms or notice changes in their body.

By implementing robust prevention strategies not only can we reduce the risk of cancer by up to 40% but also up to 75% of new cases of heart disease, stroke and type 2 diabetes, and significantly reduce the risk of dementia.

- Action 1. Increase public awareness of cancer-related risk factors through specific strategies on tobacco, substance use, skin cancer prevention, and overweight and obesity – including diet and physical exercise.**
- Action 2. Support the development and delivery of strategies to improve public health.**
- Action 3. Develop a co-ordinated approach towards chemoprevention in line with NICE recommendations.**
- Action 4. All people diagnosed with cancer must be offered appropriate and targeted information and support to live well.**

Actions 1 to 4 are supportive of other work in the Department, and are costed and funded through other strategic drivers. There are no costs associated with these actions in the Cancer Strategy.

Outcomes of investment:

- More people will lead healthier lives.
- Reduction in the growth of preventable cancers.
- Air pollution and the links with cancer are included in the new strategy.
- Drugs that may lower the risk of cancer will be prescribed so fewer people who are identified as high risk will develop cancer.
- People will be able to make informed decisions regarding treatment and lifestyle leading to improved quality of life and a reduction in treatment-related problems.
- All patients will have access to up-to-date, personalised information and support to help them cope with diagnosis, treatment and recovery.

## Theme 2 – Diagnosing and Treating Cancer

### Actions 5–34

Theme	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Diagnosing and Treating Cancer	1.6	11.0	21.1	30.1	35.5	42.4	47.4	48.4	48.4	48.4	334.3

In general, earlier diagnosis not only significantly increases survival but it is often more cost effective if patients can be treated with less intensive treatments for earlier stage cancers. This is important across all ages and even more so for children and young people.

People can receive a cancer diagnosis in a variety of places such as screening centres, GP surgeries and hospital settings including outpatient departments, inpatient wards and emergency departments. A significant proportion of people diagnosed in the emergency department will present with late-stage disease. We need to reduce late-stage cancer diagnoses and act together across a range of different interventions, and across the diagnostic pathway, in a co-ordinated and considered way.

Screening programmes are targeted at large groups of the population, the majority of whom will have no symptoms of cancer. Screening offers the opportunity to diagnose many more cancers at a much earlier stage leading to better outcomes for patients. Three programmes currently exist in NI, breast, bowel and cervical.

Treatment for cancer varies by tumour type, stage of the disease, the person's general health status, age and increasingly genetic and molecular information. Patients may be offered surgery, radiotherapy, hormonal therapy, Systemic Anti-Cancer Treatment, which includes chemotherapy, immunotherapy and biologic agents. For many it will be a combination of treatments. Regardless of the treatment offered, every person should expect the highest standard of care.

Prehabilitation enables people with cancer, prior to any type of cancer treatment, to prepare for treatment through assessment and needs-based prescribing for healthy behaviour and follow-up. The key components are exercise, nutritional management and psychological support. Prehabilitation and rehabilitation are core elements of the pathway of care from diagnosis, and focus on enablement and empowerment.

Surgery is the cornerstone of treatment in the management of non-haematological cancers and for many cancers it is curative as the sole

treatment. In addition, surgery may be undertaken as a preventative measure, for diagnostic purposes, reconstruction or for palliation.

Radiotherapy is a vital component of the different treatment options for cancer patients and has widespread uses in both curative treatments and for the treatment of symptoms in palliative patients.

Systemic Anti-Cancer Treatment (SACT) is a collective term which describes all drugs used to treat cancer and includes chemotherapy, immunotherapy and targeted therapies. SACT may be given on its own or in combination with other treatments and may be given with the aim of curing cancer or of prolonging life.

Haematological cancer, otherwise known as blood cancer, is a broad term which refers to cancer which primarily affects the blood or blood-producing organs. These cancers range in complexity and prognosis with some being low-grade chronic conditions to aggressive life-threatening conditions. Treatment also varies significantly from surveillance, outpatient chemotherapy and immunotherapy, to intensive and complex including stem cell transplantation.

**Action 5. Establish routes to diagnosis reporting and analysis on a regular basis to help monitor diagnostic pathways and outcomes for patients.**

This action will establish routes to diagnosis reporting, including data on where people present at first diagnosis, such as emergency departments, red flag referrals, OPD clinics or referrals from other clinics.

There are additional staff costs to the Cancer Registry to collect and analyse data across the entire pathway.

Outcomes of investment:

- Data sets in place will be used for audit, research and quality outcomes.
- We will have the real-time, accurate data to enable and support effective commissioning and planning decisions for the future. This is a key priority in the strategy and needs to be an early focus of the programme.
- We will understand how and where people with cancer are presenting and will be able to monitor changes in behaviour due to new pathways/services.
- We will have regular reports to inform commissioning and decision making.



- Action 6. Deliver regular, effective, targeted evidence-based 'Be Cancer Aware' campaigns harnessing the expertise in the community and voluntary sector.**
- Action 7. Reduce sensitivity levels and extend the age range for the bowel screening programme.**
- Action 8. Implement HPV testing in the cervical screening programme.**
- Action 9. Increase uptake of all cancer screening programmes.**
- Action 10. Implement all UK National Screening Committee recommendations.**

These actions will enable more cancers to be diagnosed at an earlier stage leading to more people surviving for longer. More people will partake in screening when invited. The cervical screening programme will become more targeted for those at higher risk and become more efficient. More people will be aware of the risk factors for cancer and will change behaviours to reduce their risk of developing cancer. Wider awareness of how cancer risk can be impacted by everyday decisions and strategic policy directions outside the health and social care sector.

To implement these actions annual awareness campaigns are needed. Action 6 is currently funded externally at £400k per year for the first two years of the Strategy, with similar costs expected per year after year two.

Action 7 requires additional testing kits and laboratory capacity to analyse the samples. Additional endoscopy staffing in each Trust is also required at Band 8a.

Action 8 requires additional staffing in each Trust, including nurses and AHP across Band 8a and Band 7. Training for staff in each Trust will also be required.

Action 9 will be part of the ongoing work of PHA and Trust health promotion teams and is strongly linked with Action 6.

Action 10 includes costs for additional screening programmes, such as a lung screening programme, dependent on a UK National Screening Committee decision expected in the near future, and costs are based on other existing screening programmes. The uncertainty of the exact details of future screening programmes means that the cost may increase or decrease.

Outcomes of investment:

- More cancers will be diagnosed earlier leading to more people surviving for longer.
- More people will partake in screening when invited.
- The bowel cancer screening programme will be extended and more early-stage cancers detected.
- The cervical cancer screening programme will be more targeted for those at greater risk.
- More people will be aware of the risk factors for cancer and will avoid activities which increase risk.
- There will be wider awareness of how cancer risk can be impacted by everyday decisions and strategic policy directions outside the health and social care sector.

**Action 11. Create surveillance systems for conditions where there is clear evidence regarding the premalignant potential of a particular condition to ensure people are not lost to follow up.**

Action 11 expands existing surveillance systems and creates new systems to monitor patients.

This will require administrative staff to carry out tracking in each Trust. It is estimated that 3x Band 4 administrative staff can be added to existing teams thus requiring no further capital or management costs.

Outcomes of investment:

- People at increased risk of developing cancer can be monitored and diagnosed promptly leading to more people surviving for longer.

**Action 12. Implement NICE guidance including NG12 and, in the future, the most current NICE referral guidelines.**

**Action 13. A 28-day standard will be introduced to track the time for all people from first referral for suspected cancer to confirmation of a cancer diagnosis, which includes all diagnostic and staging investigations.**

**Action 14. Review current targets to ensure equity across the pathway.**

The work to implement NICE guidance and develop new standards will include project costs plus additional clinical staff. Action 14 will not require long-term recurrent funding.

Implementing the actions will identify bottlenecks, improve access to services and ensure that services are monitored in a realistic manner.

Implementing NG12 will be a phased approach with costs spread over the 10 years. There will be diagnostic capital costs, mainly in primary care. Additional staff are required across Trusts with at least 2x Band 6 diagnostic imaging radiographers in each Trust.

All three actions include non-recurrent project costs of between £50k and £250k to drive implementation and to ensure regional consistency.

Outcomes of investment:

- More people will be referred earlier with symptoms which may be cancer, leading to better outcomes and earlier diagnosis.
- Identification and reporting on targets, identification of bottlenecks and putting in place measures to address them. This will lead to improved survival and reduced mortality for patients.
- We will be able to gain assurance that the targets we are monitoring are the right ones.

### **Action 15. Develop new pathways and diagnostic services to improve diagnosis.**

People who have vague but worrying symptoms will be diagnosed promptly through Rapid Diagnostic Centres (RDCs), with treatment starting sooner with better outcomes and less stress for the patient. This improves survival and reduces mortality for patients, more efficient processes and a reduction in repeat appointments and investigations.

Capital costs include repurposing of existing facilities for new clinics, new diagnostic tests and access to imaging. Staff including a Cancer Clinical Nurse Specialist (CNS), patient navigator and administrative support will be required for each service.

Outcomes of investment:

- People who have vague but worrying symptoms will be diagnosed promptly through RDCs, with treatment starting sooner with better outcomes and less stress for the patient.
- Improves survival and reduced mortality for patients.

**Action 16. Develop a specialist integrated haematological diagnostics service for Northern Ireland.**

Action 16 will include service redesign costs and staff costs to develop, manage and run the regional integrated service. This will have a significant impact on improving timely diagnosis for patients in all trusts and will improve efficiency. To implement the action, additional staff are required in a regional team, consisting of a consultant, specialist diagnostic and administrative staff.

Outcomes of investment:

- More timely, co-ordinated and equitable diagnosis for people presenting with blood cancers.
- Regional co-ordination of laboratory reporting for blood cancers.

**Action 17. Develop and implement prehabilitation and rehabilitation services on a regional basis for all those who will benefit.**

**Action 19. Implement Enhanced Recovery After Surgery programmes on a regional basis for all appropriate major cancer surgery.**

Implementing the actions will require specialist AHP teams in all Trusts and services developed and sustained with third sector and leisure services. Investment in prehabilitation and rehabilitation has been shown to reduce length of stay for patients and to reduce complications associated with treatment providing efficiencies in the service and better outcomes for patients.

Much of the less complex work is currently funded by external funding sources until 2024.

Costs are estimated based on costs of scaling up existing services to provide equitable and consistent service provision across all Trusts.

Outcomes of investment:

- People will be better prepared for treatment both physically and emotionally and their health status will be optimised prior to starting treatment.
- Potential risks will be identified and mitigated.
- People will complete treatment and recover with fewer complications.

**Action 20. Introduce and implement new radiotherapy techniques and technology in line with national guidance including staffing and associated training.**

Radiotherapy is essential in cancer treatment and new techniques are on the horizon. This is likely to create a significant demand on both capital and resource investment. New MR LINAC is likely in the coming years. This will require two machines currently costing circa £12m each and other associated capital works.

Delivering new techniques will also require training for existing staff and additional new staff at all grades.

Costs for this action are difficult to estimate in advance.

Outcomes of investment:

- Patients will receive effective up-to-date treatments.
- There will be optimum staff numbers, skill mix and training to ensure safe delivery of radiotherapy treatment.

**Action 21. Implement in full the recommendations of the Oncology Service Transformation Project and the Oncology Haematology stabilisation plan.**

**Action 22. Ensure timely treatment where services cannot be provided in Northern Ireland due to the specialist nature of services, technology constraints or low number of patients. Continue to monitor the viability of providing these services locally including CAR-T (Chimeric Antigen Receptor T cell Therapy).**

**Action 23. Develop near-to-home phlebotomy services.**

**Action 24. Review our model of delivery for Systemic Anti-Cancer Treatment Services including the delivery of near/close to home SACT.**

This cluster of actions is to ensure that oncology and haematology services are delivered effectively and to provide phlebotomy services close to home and to review the model for cancer service delivery.

Action 21 implements the Oncology Service Transformation Project and Oncology Haematology Stabilisation Plan and costs are taken from those approved projects.

It is expected that action 22, relating to CAR-T, will provide an unknown saving when implemented. However, one-off funding for change management / project team will be required in the first years of the Strategy. Other costs are more difficult to quantify as new innovative treatments are developed and existing treatments, particularly immunotherapies, are licenced for new indications.

Action 23 requires additional staff at various grades in each Trust to implement a near-to-home phlebotomy service. The Trusts have estimated costs based on needs:

- South Eastern Trust - £798,246
- Western Trust - £865,944
- Northern Trust - £631,191
- Southern Trust - £1,735,172
- Belfast Trust - £170,060

Action 24 is expected to be cost neutral when implemented. However, one-off funding for change management / project team will be required in the first years of the Strategy.

Outcomes of investment:

- Timely, efficient and compassionate transfer of patients out of Northern Ireland and back home again for specialist treatments supported by good communication and follow-up care.
- Less stress to patients, families and carers.
- People will not have to travel to receive specialist treatment which could be provided safely closer to home.
- People will receive safe, effective and evidence-based treatment and care in a timely way.
- Treatment will be cost effective and efficient with fewer hospital attendances.
- There will be safe prescribing of SACT for all oncology and haematology patients.

### **Action 25. Develop a 24/7 metastatic spinal cord compression service with rapid access to imaging and treatment.**

This action will allow people at risk to be identified early and receive optimal treatment and care. Patients will not suffer from life-altering spinal damage and paralysis resulting in better clinical outcomes and more cost-effective care.

Costs include a small staffing complement in Belfast Trust to deliver a regional service.

#### Outcomes of investment

- People at risk will be identified early and receive the optimum treatment and care. Patients will not suffer from life-altering spinal damage and paralysis resulting in better clinical outcomes and more cost-effective care.

### **Action 26. Extend the acute oncology service across all Trusts to seven-day working.**

This action will expand the acute oncology service from a five-day, nine to five model to seven-day working to ensure that patients receive the care and treatment they need when they need it.

#### Outcomes of investment

- More efficient care and treatment for people with cancer.
- Better experience for all patients with reduced suffering.
- Potentially a reduction in the numbers of people admitted for inpatient treatment and care.
- Less stress to patients needing acute services, families and carers.

### **Action 28. Develop ambulatory care haematology units in each of the Trusts and establish near-to-home treatment services for suitable patients.**

### **Action 29. Implement a safe and robust electronic prescribing system for all Systemic Anti-Cancer Treatment regimes.**

Ambulatory care units will be managed by an Advanced Nurse Practitioner supported by band 5 nurses and a band 3 support worker. This service will enable day care for teenagers and young adults and for a range of patients dependent on treatment regimes. It will also support the management of haematology patients with complications resulting from treatment. It will enable more rapid discharge and reduce admission rates.

Electronic prescribing is currently not implemented in haematology and paediatric oncology and haematology. By implementing this, more efficient care can be provided

To implement the actions, additional nurses and support workers at band 3 are required. Belfast Trust will need a larger service based on it being the regional centre for several specialist treatments. Northern Trust has higher patient volumes than the other cancer units.

Electronic prescribing costs are for additional staff in the Business Support Organisation (BSO) and a system administrator in BHSCT plus additional pharmacy costs for regional implementation in haematology and paediatrics.

Outcomes of investment:

- More timely and appropriate care for people with blood cancers.
- Better experience for all patients including teenagers and young adults.
- Reduction in the numbers of people admitted for inpatient treatment and care.
- Safe and efficient prescribing of medication for all patients.

**Action 32. Increase collaboration between Northern Ireland, Great Britain and the Republic of Ireland in the provision of children's oncology services.**

**Action 33. Review the provision of services for teenage and young adults in Northern Ireland including transition arrangements, age-appropriate environments, psychological support and long-term follow up.**

Increased collaboration with other jurisdictions is essential to keep children and young people as close to home as possible during treatment for specialist treatment not provided in Northern Ireland. Costs may be incurred following reviews but are difficult to anticipate beforehand.

Both actions require a review team to consider the best way forward. This includes external staff, experts and collaborative events.

Outcomes of investment:

- Feasibility study on the provision of an all-island paediatric oncology service leading to effective provision of children's oncology services.
- Teenagers and young adults will be given appropriate care throughout their cancer journey and supported to transition into adult services.
- Less stress to children and young people, families and carers.
- People will be cared for in an environment appropriate to their needs and age.
- Everyone with cancer will have the same level of access to support and information.
- Early identification and management of cardiac consequences of treatment and late effects.



**Action 34. An effective Multi-Disciplinary Team meeting will be held for all people diagnosed with cancer including Cancer of Unknown Primary and metastatic disease.**

This action will see MDTs implemented in keeping with NICE Improving Outcomes Guidance. Currently there are no MDTs for Cancer of Unknown Primary or for metastatic disease. Funding is required to establish these new MDTs. MDT Peer Review has been funded since 2013 by a cancer charity.

The Peer Review programme is estimated to cost £35k annually for a rolling programme of cancer types. Details are to be worked out in terms of how many MDTs are required.

Outcomes of investment:

- All patients including those with recurrence and metastatic disease will be discussed at an MDT.
- People will receive the most effective treatment and have improved access to clinical trials and new novel and innovative treatments.
- All MDTs will be subject to an ongoing peer review programme.

## Theme 3 – Supporting People to Live Well and Die Well

### Actions 35–51

Theme	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Supporting People to Live Well and Die Well	0.1	2.5	6.2	10.3	14.5	15.5	17.0	19.1	19.0	19.0	123.2

The HSC is committed to a person-centred approach which aims to put the public, patients, their carers and staff at the heart of cancer services and empower managers and health-care professionals to commission, plan, monitor and deliver effective and efficient services of the highest quality. With increasing numbers of people surviving their cancer diagnosis, cancer follow-up in primary care is likely to resemble that of other chronic diseases.

CNSs play an important role in the management of individual patients as their key worker. The support of a CNS is the single most important factor in a patient's experience of care. CNSs should be available across the cancer pathway, through diagnosis, treatment for primary and metastatic disease and throughout follow-up. This applies to all children diagnosed with cancer and their parents and includes a dedicated TYA CNS service to support teenagers and young adults throughout their care.

Stress and distress are a common response to a diagnosis of cancer, not only for the patient but also for the families. Preventing mental health conditions from developing amongst those living with cancer, as well as ensuring adequate management of conditions should they occur, are important in the provision of holistic cancer care.

Many people will seek information from pre-diagnosis particularly when they are referred by their GP for further investigations. Specific information resources must be provided to all patients at this early stage. Information and support go far beyond the physical implications of cancer. Provision must be holistic in nature and encompass financial and benefits advice, employment issues and support for carers.

As more people survive cancer, the problems associated with late effects, consequences of treatment and long-term follow up will grow. This comes at a high cost to both the individual and to health and social care. Not only is this an issue for the quality of life of those affected, it is also a major challenge for the timely provision of long-term, tailored care and support.

Cancer is the largest cause of death in Northern Ireland. The Department's vision for palliative care is that any person with an advanced non-curative condition lives well and dies well irrespective of their condition or care setting.

The delivery of high-quality palliative and end-of-life care requires multidisciplinary input. Specialist palliative care professionals will play an important role, but much of the care that people will receive, including at the end of life, will also be provided by wider 'generalists'.

In Northern Ireland, there remains a significant taboo around discussing death and dying. This, inevitably, can result in conversations about palliative care and Advance Care Planning being put off until the advanced stages of a person's condition, because of the association with the end-of-life stage. This can foster an attitude where palliative services are only considered once all active treatment options have been exhausted.

**Action 35. Develop a person-centred model of care that builds on learning from COVID 19 with increasing use of telehealth and technology.**

**Action 36. Offer all people a holistic needs assessment, an appropriate care plan and provide signposts to relevant sources of help and support.**

**Action 37. Develop a comprehensive treatment summary record for all people diagnosed with cancer.**

**Action 38. All people who have completed cancer treatment will be assessed and risk stratified to appropriate follow-up pathways.**

**Action 42. Timely and appropriate access to therapeutic and practical support services for people affected by cancer targeting emotional, physical, spiritual and social needs will be provided.**

These actions focus on supporting people with cancer and making sure those who need additional help and support can access it. The actions are largely cost-neutral, and only require some additional work to create pathways and guidance to ensure people with cancer can reach those support services which already exist. Technology and training for holistic needs assessment has been provided by Macmillan and the Teenage Cancer Trust.

All actions would be combined into one review spanning a number of years – and considered in stages.

Action 37 would involve digital expertise to develop a treatment summary record linked with primary care systems and Encompass.

Action 38 would require some additional staff in each Trust, mostly CNS/ANP.

Outcomes of investment:

- All people diagnosed with cancer will be provided with a comprehensive record of their diagnosis and the treatment they have received with details of their follow-up pathway and potential late effects and consequences of treatment.
- There will be more efficient care and treatment for people with cancer.
- All people with cancer will have their holistic needs assessed and will receive the support, care and information required to live their lives as fully as possible following diagnosis.
- All people diagnosed with cancer will be followed up or monitored in the appropriate way by the appropriate health professional.

**Action 39. All patients, including children and young people, diagnosed with cancer will have access to a Clinical Nurse Specialist throughout the entire care pathway.**

It is clearly evidenced that outcomes for patients increase with the level of access to a clinical nurse specialist. Having access to a clinical nurse specialist throughout the pathway will thus improve co-ordination of care, enable more efficient and cost-effective pathways and improve outcomes for patients.

The costs are based on increasing the numbers of clinical nurse specialists to ensure that all patients diagnosed with cancer have access to a CNS across the entire cancer pathway. A robust plan based on the recent cancer nursing workforce census has informed these costings.

It is expected that the core costs may be higher than £10m; however, it is anticipated that some matched funding will be provided by cancer charities.

Outcomes of investment:

- All people with cancer will have co-ordinated, efficient and effective care with ongoing information and support.
- Career pathways and training will be developed to ensure there is a skilled workforce for the future.

**Action 40. In alignment with the mental health strategy, develop a model to promote good mental health and wellbeing for people affected by cancer, and develop pathways to ensure that all people with cancer have access to mental health support in line with their needs.**

By supporting a person's mental health needs, we can improve holistic outcomes for patients. To implement the action, we need a project group to develop a regional model for local delivery.

The cost includes creating a clinical psychologist-led psycho-oncology service to provide some direct care for patients, and pathways into mental health services where the patient's needs are such that a full mental health approach is required.

Each Trust would require staff across a number of grades, including psychologists and counsellors.

Outcomes of investment:

- Timely, efficient and compassionate services for people affected by cancer.
- Less stress to patients, families and carers.
- Pathways developed for people undergoing cancer treatment who have or develop mental health problems.

**Action 41. All people with a cancer diagnosis will be referred to a Cancer Information and Support Service at diagnosis.**

This will support people to understand their treatment and care, access appropriate support services and make informed decisions leading to improved quality of life and a reduction in treatment-related problems. It will also lead to all patients having access to up-to-date, personalised information and support to help them cope with diagnosis, treatment and recovery. Funding will ensure all trusts have equitable provision.

Outcomes of investment:

- People will be able to make informed decisions regarding treatment and lifestyle leading to improved quality of life and a reduction in treatment-related problems.
- All patients will have access to up-to-date, personalised information and support to help them cope with diagnosis, treatment and recovery.

**Action 43. All people starting cancer treatment will have their health status assessed and recorded and a plan developed to mitigate potential late effects and consequences of their treatment.**

**Action 44. Develop a regional, multidisciplinary approach to the identification and management of all people at risk of late effects and consequences of their cancer treatment.**

**Action 45. Identify people deemed to be at highest risk for late cardiovascular effects and enrol them in a follow-up programme.**

**Action 46. Screen children to detect early, subtle cardiac abnormalities that might be treated, or may be reversible. In addition, where children are treated with anthracyclines or cardiac radiation they will have lifelong screening.**

This cluster of actions is about improving existing services and developing regional pathways for people living with late effects and the consequences of treatment. Implementing these actions will create some additional service requirements but will, if done correctly, significantly improve outcomes for patients. Possible new services, such as a regional cardio-oncology service for adults and children, need to be quantified but are likely to include consultant sessions and specialist nurses and AHPs. Services for diabetes care in both secondary and primary care may also be significant.

To implement all actions, a number of reviews would have to be carried out in a number of different cancer areas. It is therefore expected that the review will be ongoing over a number of years to assess each area as appropriate. The costs are fully related to a review team and associated activities.

Based on outcomes of the reviews, there will be expenditure to establish services largely related to workforce costs which may be significant.

There may also be additional costs for imaging dependent on pathways and project outcomes, for example for echocardiographs and dexascans.

Outcomes of investment:

- More efficient, cost-effective care and treatment for people with cancer, with improved quality of life.
- All people who are at risk of developing late effects and consequences of their cancer treatment will be identified and supported to manage their symptoms with an improved quality of life.
- Early identification and management of cardiac consequences of treatment in adults and children.

- Improved survival outcomes for children and young people who have received cancer treatment.

**Action 47. Deliver integrated, co-ordinated and personalised palliative and end-of-life care to people with non-curative cancer when and where they need it.**

**Action 48. All people with non-curative cancer will have access to a palliative care key worker.**

**Action 49. Extend palliative and end-of-life support and continuity of care to seven-day working for all people with non-curative cancer.**

**Action 50. Increase awareness and uptake of advance care planning for all people with non-curative cancer.**

**Action 51. All people living with non-curative cancer, and those important to them will have access to the bereavement, psychosocial and counselling support appropriate to their needs and preferences before and after death.**

Palliative care is currently co-ordinated through the Regional Palliative Care in Partnership Programme Board (PCIP.) Cancer accounts for circa 70% of palliative care activity. There is wide disparity in provision both in secondary and primary care. Four hospices provide specialist palliative care for adults and one for children.

Specialist palliative care is currently provided Monday to Friday 9am to 5pm and would, after implementation, be extended to seven-day working and longer days with better provision for Out Of Hours (OOH) advice and support.

This will require expansion of specialist palliative care services in the community across each of the 17 local areas. The cost would be greater if provision is for an extended day, for example 8am to 8pm. Costs for education and training on a regional basis 1x band 8A will also be required.

Paediatric palliative care will be part of the service model agreed for children and the review of TYA services.

Outcomes of investment:

- People with non-curative cancer will have the optimum co-ordinated support, treatment and care in a place of their choosing.
- People with non-curative cancer will have access to support, treatment and care seven days a week so reducing out-of-hours and ED attendances and providing better care to patients and families.

- People will be supported to make end-of-life plans.
- People with non-curative cancer will be given appropriate and timely support which will reduce stress and improve quality of life for them and their loved ones.



## Theme 4 – Implementing the Strategy

### Actions 52–60

Theme	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Implementing the Strategy	0.6	2.6	7.0	15.3	22.3	27.3	37.3	57.3	72.4	78.4	320.5

The immense pressures the HSC, including all those involved in cancer services, have been put under over the past two years as a result of COVID-19 are fully recognised. As a consequence, there have been additional pressures on an already stretched workforce. Creating a sustainable workforce to care for those with a cancer diagnosis must be an integral part of the Cancer Strategy. The workforce has grown in recent years but growth has not kept pace with the exponential rise in demand for diagnosis, treatment and ongoing care.

Appropriate skill mix, career pathways, training and retention of staff across the wide range of professions is essential for the delivery of cancer services. With advances in treatment, many cancers are becoming long-term chronic conditions; consequently, there is a growing need for the provision of more specialist care in a primary care setting, closer to home for suitable patients.

Multi-professional education and training for staff at all levels and in all settings will be an essential enabler for the successful delivery of this plan.

Cancer can affect all aspects of a person's life; therefore, the information we collect is crucial to understanding how the delivery of services can be improved for the future.

Accurate data is essential to underpin all decisions including: commissioning; service improvement and development; performance management and future planning. It is vital that common data sets are developed, agreed and used uniformly across the service. Central to our information and data requirements is the ability to measure the experience of all people with cancer on an ongoing basis to inform service improvement and redesign.

The Strategy provides the strategic direction and key steps to achieving the overall vision for improved cancer outcomes for the people of Northern Ireland. In order to meet these challenges, new governance structures will be established to performance manage and oversee the delivery of the Strategy. Strong clinical leadership and the inclusion of people with lived experience of cancer will be central to these structures.

**Action 52. Develop a regional, multi-professional cancer workforce strategy and implementation plan. This will be underpinned by a training plan to ensure there are appropriately skilled staff to deliver services for the future.**

A sustainable workforce is key to the future delivery of cancer services. A comprehensive workforce review will consider the workforce needs for an effective, efficient and sustainable workforce for the next 10 years.

The costs associated with this action are divided into three areas: project costs, training and additional workforce. £400k would be required to carry out a review of the workforce and develop a costed cancer workforce strategy including training needs.

Implementing the workforce strategy will create the need for significant additional workforce investment. The full need is not known, but considering spend on cancer services in other jurisdictions and the gap in services in Northern Ireland it is expected that this may be up to £75m.

Outcomes of investment:

- A review will be completed and a multi-professional cancer workforce plan developed.
- There will be effective cancer services, reduced waiting times, timely diagnosis and treatment, equitable support for people affected by cancer across the pathway from diagnosis, survivorship and into palliative care.
- Less use of the independent sector, agency and locum staff leading to reduced costs.
- Optimum skill mix across all professional disciplines.
- Staff will have the required skills to effectively deliver a safe, efficient and effective service for people with cancer.
- Improved staff satisfaction.

**Action 53. All health-care professionals who are expected to carry out sensitive communication must complete an advanced communication skills training programme.**

The biggest area of complaints in cancer services is related to poor communication. Breaking bad news guidelines have been in existence for many years with funding for advanced communication skills provided by a cancer charity. Increasing training on communication is expected to improve patient wellbeing and reduce complaints.

To implement the action, investment is needed in staff costs including development and delivery of a regionally agreed, sustainable model for advanced communication skills training.

Outcomes of investment:

- People are effectively communicated with so they understand what a cancer diagnosis means to them.
- Staff have the confidence and the skills required to communicate bad news in a compassionate and effective way.

**Action 54. Measure the experience of all people with cancer on an ongoing basis to inform service improvement and redesign.**

By increasing the understanding of the experiences of people affected by cancer we can improve service delivery and improve patient outcomes.

Costs include licences per trust to measure Patient Reported Outcome Measures (PROMS) via validated apps as well as staff costs to monitor and collate data.

Every second year, a patient satisfaction survey would be carried out at a cost of £20k–25k.

Outcomes of investment:

- To inform service improvement and redesign.
- To be able to measure progress against investment.

**Action 55. Develop a cancer research strategy for Northern Ireland in partnership with key stakeholders.**

**Action 56. Increase the number of people taking part in clinical trials, including children and young people.**

Clinical trials uptake is low in Northern Ireland. Increasing this will improve access to new novel treatments and will improve outcomes. Combining this with an overall cancer research strategy, a more co-ordinated approach including a broad range of stakeholders can be achieved.

Both actions include project costs in years 1 and 2 to develop the strategy and plans to increase recruitment to trials.

Action 56 would require additional staff in each Trust, both dedicated PA time for clinical staff and a band 6 research nurse support.

Outcomes of investment:

- A comprehensive multisectoral research programme for Northern Ireland will be agreed, funded and delivered.
- People with cancer will get access to cutting-edge treatment / clinical trials and clinical staff will get opportunities to participate in research.
- More people will be offered the opportunity to take part in clinical trials leading to higher survival rates and treatment breakthroughs.

**Action 57. Review the data required for the effective delivery of cancer services in alignment with Encompass.**

**Action 58. Develop a cancer data framework to inform and improve cancer services and facilitate research.**

These actions will provide data sets for audit, research and quality outcomes. They will allow real-time, accurate data to be collected and will enable and support effective commissioning and planning decisions for the future. This is a key priority in the strategy and needs to be an early focus of the programme.

Further, this will allow understanding of how and where people with cancer are presenting and will enable changes in behaviour due to new pathways/services to be monitored.

The actions will require additional staff in data development and support and will require some capital investment in data systems.

Outcomes of investment:

- Data sets will be put in place and used for audit, research and quality outcomes.
- We will have the real-time, accurate data to enable and support effective commissioning and planning decisions for the future.
- We will understand how and where people with cancer are presenting and will be able to monitor changes in behaviour due to new pathways/services. There will be regular reports to inform commissioning and decision making.
- We will be able to use data effectively and contribute to national audits to benchmark clinical outcomes to enable service improvement. This will lead to more people partaking in screening when invited.
- There will be a roadmap of what we need to develop to move from where we currently are to a digitally-enabled future system of robust real-time data collection.

## **Enabler – additional administrative costs to implement the Strategy**

To implement the Strategy, additional resources will be required to allow for project management, administration and change work. It is expected that this will require dedicated support across the independent sector, community and voluntary sector, HSC Trusts, HSC Board, PHA and the Department.

It is expected that requirements for each HSC Trust will be determined on a project-by-project basis, and that the HSC Board and the HSC Trusts will require an implementation manager at Band 8a and one support worker. The Department will require programme management structures. In addition, a recurrent support fund for change for the independent and community voluntary sectors will be developed.

Action	(all costs in £k)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Capital
<b>Theme 2 – Diagnosing and Treating Cancer</b>													
5. Establish routes to diagnosis reporting and analysis on a regular basis to help monitor diagnostic pathways and outcomes for patients.	100	100	100	100	100	100	100	100	100	100	100	1,000	
6. Deliver regular, effective, targeted evidence-based ‘Be Cancer Aware’ campaigns harnessing the expertise in the community and voluntary sector.													
9. Increase uptake of all cancer screening programmes.			400	400	400	400	400	400	400	400	400	3,200	
7. Reduce sensitivity levels and extend the age range for the bowel screening programme.		150	100	1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005	7,285	5,000
8. Implement HPV testing in the cervical screening programme.		100	350	985	985	985	985	985	985	985	985	7,345	3,000
10. Implement all UK National Screening Committee recommendations.				2,500	4,000	5,000	5,000	5,000	5,000	5,000	5,000	31,500	10,000
11. Create surveillance systems for conditions where there is clear evidence regarding the premalignant potential of a particular condition to ensure people are not lost to follow up.		255	510	510	510	510	510	510	510	510	510	4,335	
12. Implement NICE guidance including NG12 and, in the future, the most current NICE referral guidelines.		100	100	480	1,480	2,480	4,480	5,480	5,480	5,480	5,480	25,560	7,500
13. A 28-day standard will be introduced to track the time for all people from first referral for suspected cancer to confirmation of a cancer diagnosis, which includes all diagnostic and staging investigations.				100	100	1,000	2,000	2,000	2,000	2,000	2,000	9,200	
14. Review current targets to ensure equity across the pathway.	100											100	
15. Develop new pathways and diagnostic services to improve diagnosis.	68	643	2,299	4,870	4,870	4,870	4,870	4,870	4,870	4,870	4,870	37,100	7,500
16. Develop a specialist integrated haematological diagnostics service for Northern Ireland.	124	247	247	247	247	247	247	247	247	247	247	2,347	
17. Develop and implement prehabilitation and			250	1,063	1,875	1,875	1,875	1,875	1,875	1,875	1,875	12,563	

Action	(all costs in £k)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Capital
rehabilitation services on a regional basis for all those who will benefit. 19. Implement Enhanced Recovery After Surgery programmes on a regional basis for all appropriate major cancer surgery.													
20. Introduce and implement new radiotherapy techniques and technology in line with national guidance including staffing and associated training.		500	1,000	2,000	4,000	8,000	10,000	10,000	10,000	10,000	10,000	55,500	30,000
21. Implement in full the recommendations of the Oncology Service Transformation Project and the Oncology Haematology stabilisation plan.	1,000	5,500	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	86,500	
22. Ensure timely treatment where services cannot be provided in Northern Ireland due to the specialist nature of services, technology constraints or low number of patients. Continue to monitor the viability of providing these services locally including CAR-T.	50	150	150									350	
23. Develop near-to-home phlebotomy services.		2,100	4,199	4,199	4,199	4,199	4,199	4,199	4,199	4,199	4,199	35,692	2,000
24. Review our model of delivery for Systemic Anti-Cancer Treatment Services including the delivery of near/close-to-home SACT.	50	150										200	
25. Develop a 24/7 metastatic spinal cord compression service with rapid access to imaging and treatment.		82	164	164	164	164	164	164	164	164	164	1,394	
28. Develop ambulatory care haematology units in each of the Trusts and establish near-to-home treatment services for suitable patients.			309	677	735	735	735	735	735	735	735	5,396	2,000
29. Implement a safe and robust electronic prescribing system for all Systemic Anti-Cancer Treatment regimes.		320	440	440	440	440	440	440	440	440	440	3,840	
32. Increase collaboration between Northern Ireland, Great Britain and the Republic of Ireland in the provision of children's oncology services.	50	150	150									350	

Action	(all costs in £k)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Capital
33. Review the provision of services for teenagers and young adults in Northern Ireland including transition arrangements, age-appropriate environments, psychological support and long-term follow up.		300										300	
34. An effective Multi-Disciplinary Team meeting will be held for all people diagnosed with cancer including Cancer of Unknown Primary and metastatic disease.		175	350	350	350	350	350	350	350	350	350	2,975	
<b>Theme 3 – Supporting People to Live Well and Die Well</b>													
35. Develop a person-centred model of care that builds on learning from COVID-19 with increasing use of telehealth and technology. 36. Offer all people a holistic needs assessment, an appropriate care plan and provide signposts to relevant sources of help and support. 37. Develop a comprehensive treatment summary record for all people diagnosed with cancer. 42. Timely and appropriate access to therapeutic and practical support services for people affected by cancer targeting emotional, physical, spiritual and social needs will be provided.		300										300	
38. All people who have completed cancer treatment will be assessed and risk stratified to appropriate follow-up pathways.		100	500	400	400	400	400	400	400	400	400	3,400	
39. All patients, including children and young people, diagnosed with cancer will have access to a Clinical Nurse Specialist throughout the entire care pathway.		1,000	3,000	6,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	70,000	
40. In alignment with the mental health strategy, develop a model to promote good mental health and wellbeing people affected by cancer, and develop pathways to ensure that all people with cancer have access to mental health support in line with their needs.	50	150	720	1,440	1,440	1,440	1,440	1,440	1,440	1,440	1,440	11,000	



Action	(all costs in £k)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Capital
41. All people with a cancer diagnosis will be referred to a Cancer Information and Support Service at diagnosis.		600	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	1,205	10,240	
43. All people starting cancer treatment will have their health status assessed and recorded and a plan developed to mitigate potential late effects and consequences of their treatment.													
44. Develop a regional, multidisciplinary approach to the identification and management of all people at risk of late effects and consequences of their cancer treatment.													
45. Identify people deemed to be at highest risk for late cardiovascular effects and enrol them in a follow-up programme.													
46. Screen children to detect early, subtle cardiac abnormalities that might be treated, or may be reversible. In addition, where children are treated with anthracyclines or cardiac radiation, they will have lifelong screening.		250	250	250	500	1,500	3,000	5,000	5,000	5,000	5,000	20,750	
47. Deliver integrated, co-ordinated and personalised palliative and end-of-life care to people with non-curative cancer when and where they need it.													
48. All people with non-curative cancer will have access to a palliative care key worker.													
49. Extend palliative and end-of-life support and continuity of care to seven-day working for all people with non-curative cancer.													
50. Increase awareness and uptake of advance care planning for all people with non-curative cancer.													
51. All people living with non-curative cancer, and those important to them, will have access to the bereavement, psychosocial and counselling support appropriate to their needs and preferences before and after death.	50	100	500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	7,650	
<b>Theme 4 – Implementing the Strategy</b>													

Action	(all costs in £k)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total	Capital
31. Every child, young person and adult diagnosed with cancer, and their carers, will have access to staff with the specialist knowledge and skills to provide developmentally appropriate, person-centred care.													
52. Develop a regional, multi-professional cancer workforce strategy and implementation plan. This will be underpinned by a training plan to ensure there are appropriately skilled staff to deliver services for the future.	125	500	4,000	12,000	19,000	24,000	34,000	54,000	69,000	75,000	291,625		
53. All health-care professionals who are expected to carry out sensitive communication must complete an advanced communication skills training programme.		168	168	168	168	168	168	168	168	168	1,512		
54. Measure the experience of all people with cancer on an ongoing basis to inform service improvement and redesign.		125	110	125	110	125	110	125	110	125	1,065		
55. Develop a cancer research strategy for Northern Ireland in partnership with key stakeholders.	50	100									150		
56. Increase the number of people taking part in clinical trials, including children and young people.	50	100	333	665	665	665	665	665	665	665	5,138		
57. Review the data required for the effective delivery of cancer services in alignment with Encompass.													
58. Develop a cancer data framework to inform and improve cancer services and facilitate research.		750	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	12,750	6,000	
Additional admin cost	400	890	890	890	890	890	890	890	890	890	8,410		
<b>Total</b>	<b>2,267</b>	<b>16,155</b>	<b>34,294</b>	<b>55,732</b>	<b>72,338</b>	<b>85,253</b>	<b>101,738</b>	<b>124,753</b>	<b>139,738</b>	<b>145,753</b>	<b>778,021</b>	<b>73,000</b>	



